SUMMARY OF THE BILL

The Committee considered a total fiscal year 1994 budget request of \$244,711,179,000 in new obligational authority for the military functions of the Department of Defense, excluding military assistance, military construction, family housing and civil defense. The following table displays the major recommendations:

[In thousands of dollars]

	Fiscal year 1994 enacted	Fiscal year 1995 request	Committee recommendation
Title I-Military personnel	70,624,044	70,475,397	70,445,512
Title II-Operation and maintenance	76,616,787	81,926,891	81,361,358
Title III-Procurement	44,663,078	42,698,919	42,708,049
Title IV-Research, development, test, and	35,191,491	36,225,013	35,405,174
evaluation			
Title V-Revolving and management funds	2,643,095	1,777,638	1,618,000
Title VI-Other Department of Defense programs	11,021,820	11,329,706	11,239,360
Title VII-Related agencies	403,588	305,384	361,584
Title VIII-General provisions	-618,958	7,131	104,982
Title IX-Fiscal year 1994 supplemental		270,000	170,000
appropriations			
Procurement: General provisions		-304,900	
(Additional transfer authority)	(2,500,000)	(2,000,000)	(2,000,000)
Total, Department of Defense	240,544,945	244,719,979	243,414,029

BUDGET SUMMIT AGREEMENT AND 602(B) ALLOCATION

The Appropriations Committee conformed fully to the budget resolution for defense spending in its 602(b) allocation. This allocation divided the budget authority and outlays among the subcommittees with jurisdiction over discretionary spending. The Defense Subcommittee has the far greatest share of defense spending. In this recommended bill, the Appropriations Committee has remained within the tight constraints of its 602(b) allocation for defense.

SAC, p. 6

O&M SUPPORT TO MILITARY FORCES

DEPOT MAINTENANCE

The Committee's review of the Department's depot maintenance funding proposals for 1995 have led it to conclude that the financial backlogs projected for Army and Navy aircraft depot maintenance programs are beyond levels deemed appropriate by the Committee. This is also the case for the Army and Marine Corps combat vehicle maintenance programs. To address these findings, the Committee provides additional funds for select aircraft and combat vehicle maintenance programs, making it possible for each service to meet 80 percent of its fiscal year 1995 maintenance requirements in these programs. For aircraft maintenance, the Committee provides an additional \$85,500,000 to the Army and \$23,600,000 to the Navy. And for combat vehicle maintenance, the Committee adds \$10,800,000 to the Army program and \$16,300,000 to the Marine Corps program.

The Committee also recommends providing an additional \$100,000,000 for needed ship repairs not funded in the President's request. Navy budget reductions and smaller force levels will result in significantly less repair work and a loss of skilled labor at both private and Navy shipyards. Providing funds for additional workload at both private and public yards in 1995 will allow for a more measured and gradual transition to smaller shipyard work forces in the future while preserving, to a reasonable extent, this critical industrial base. These additional funds will be used for ship repairs identified by the Navy in a plan submitted to the Committee. To assure that these funds are used for the purposes intended, language requiring the Navy to obligate a minimum amount of funding for ship maintenance during the fiscal year is included in the bill.

For those programs not mentioned above, such as Air Force aircraft or Navy engine depot maintenance, the budget request proposes amounts sufficient to meet the 80 percent minimum funding level. The Committee's recommendations fully fund the President's request for those critical programs not mentioned above.

As noted previously by the Committee, a robust depot maintenance program should be considered fundamental to preserving military readiness. Yet, as forces are reduced, maintaining some level of repair backlog is sound management practice, inasmuch as this practice allows the depots to smooth workload and minimize turbulence in the work force. Growth in backlogs above certain thresholds, however, could hamper force operations and degrade readiness in the near or medium term. Thus, the Committee directs the military services to allocate funding for depot maintenance programs requested in its annual budget submissions at levels equal to or greater than 80 percent of the annual requirements for airframes and aircraft engines, combat vehicles, and ships.

The depot maintenance industrial base revisited.-The Committee is chagrined by the Department's recent policy decision to discontinue public/private and public/public competition of depot maintenance workload. Ending these competition programs runs exactly counter to those policies and fundamental business operating procedures which are encouraged under the defense business operations fund initiative. Moreover, the Committee believes that only in a competitive environment will depot maintenance providers be motivated fully to ensure that the most efficient and economical policies and procedures are followed.

The Committee agrees that there are flaws in the Department's depot maintenance competition programs which must be corrected. The data base, financial management, and cost comparison systems are not sufficient to ensure a level, competitive playing field. Moreover, the process by which the Department bids and awards workload is not consistent with sound business theory or practice, and thus does not allow for true market mechanisms to operate.

The Committee believes that ending depot maintenance competition is not in the Department's best interest. For example, in the absence of competition, it is likely that depot maintenance prices will continue to increase dramatically-a prospect that should be considered troublesome by the operating forces who pay for depot maintenance services. Thus, the Committee directs the Department to reinstitute competition for depot maintenance workload funded in fiscal year 1995 and thereafter, while simultaneously proceeding with data base and financial management system and award process improvements that will enhance the quality of future competitions. A general provision (sec. 8057) is included which permits full competition of depot maintenance programs. Should the Department fail to reinstitute competition, the Committee will consider corrective actions on future legislation.

SAC, p. 36-37 (O&M)

OPERATION AND MAINTENANCE, AIR FORCE

 Appropriations, 1994
 \$19,293,805,000

 Budget estimate, 1995
 19,076,623,000

 House allowance
 18,963,050,000

 Committee recommendation
 18,836,243,000

The Committee recommends an appropriation of \$18,836,243,000. This is \$240,380,000 below the budget estimate and \$126,807,000 below the House allowance.

SUMMARY OF COMMITTEE ADJUSTMENTS

Allocations of the Committee adjustments are made for each operation and maintenance, Air Force funding category identified in the Department's O-1 submission. A table showing the budget estimate, Committee adjustment, and recommended funding level by O-1 category is provided below. Proposed transfers of funds between budget activity funding categories in excess of \$10,000,000 are subject to standard reprogramming procedures.

SAC, p. 67

COMMITTEE ADJUSTMENTS

O&M SUPPORT TO MILITARY FORCES

Depot level repairables [DLR's].-The Committee adds \$86,000,000 for DLR's, cutting by one-half a funding shortfall for these items. DLR's are large engine and airplane parts which normally are maintained at the Air Force's industrial repair facilities. These items are critical to sustaining air operations; without an ample supply, the Air Force risks being unable to achieve its operational tempo planned in the 1995 budget request. The potential shortfall arises from overly optimistic savings assumptions made by the Air Force in its budget submissions for both 1994 and 1995.

AWACS training.-In light of recent reports describing a need to enhance training programs for AWACS aircraft crewmembers, the Committee recommends an increase of \$16,000,000 for AWACS training activities.

B-52 bomber force levels.-In response to the Committee's concerns about the viability of the Air Force's bomber force to meet combat requirements prescribed by the "Bottom-Up Review," the Air Force is directed to sustain B-52 bomber force levels at the fiscal year 1994 level. The Committee understands that satisfying

this direction will require the Air Force to retain 34 B-52 bombers now in a PAA status that are slated for placement in attrition reserve in the service's 1995 budget plans. An increase of \$69,700,000 is provided to cover operations and support costs of these additional aircraft in fiscal year 1995.

European command drawdown/base operations.-The Committee recommends an increase of \$5,000,000 to the Air Force's operating forces base support programs to reduce potential shortfalls in the U.S. Air Force European Command [USAFE] base operations budget caused by unanticipated costs of the drawdown there. The additional funds should be used first to meet health and safety-related maintenance and repair projects not funded in the command's request. By providing these funds, the Committee expects that the propensity to transfer funds from other operation and maintenance programs-particularly unit training programs-to cover infrastructure support costs will be minimized.

Joint exercises/COPE THUNDER.-The Committee recommends an additional \$3,000,000 to support the participation of Pacific region allies in the COPE THUNDER exercise program. This initiative renews the longstanding regional component of the COPE THUNDER exercises, when conducted at Clark Air Base in the Philippines prior to 1991. Also the Committee recommends an increase of \$9,000,000 for the Air Force's joint exercise program, eliminating a funding shortfall for this program.

Strategic offensive modernization.-The Committee recommends reducing proposed funding levels for strategic missile modernization programs. The Air Force proposed an ambitious expansion of its Minuteman III life extension and Rivet Mile programs in 1994, requiring an increase in funding of almost 20 percent over 1993 levels. The Committee agreed last year that such an expansion was out of step with the fiscal constraints facing the Department and the reduced nuclear threat facing the Nation. Funding of \$290,135,000 was provided in 1994 by Congress-a reduction of \$24,500,000 from the Air Force request. This amount would have allowed the program to expand, but at a slower rate. Information submitted by the Air Force indicate that the service failed to slow the program; in fact, the Air Force chose to increase funding for the program, contradicting congressional intent and robbing other programs of funding. In 1995, the Air Force plans to fund these strategic modernization efforts at the increased levels. Again, the Committee believes this is out of step with today's fiscal imperatives and threat environment. A reduction totaling \$34,900,000 is recommended for these programs, keeping funding to 1994 levels plus inflation and a measured real funding increase. The Committee directs the Deputy Assistant Secretary of the Air Force (budget) to submit a detailed report of the funding profile, plans, and status of these programs by January 1, 1995.

B-1 bomber conventional upgrades.-After reviewing the Air Force plans to upgrade the B-1 bomber, the Committee concludes that the need for operation and maintenance funding in this program has not materialized. This is especially so in light of the Committee's direction (contained in another section of this report) to the Department to conduct an indepth analysis of bomber force programs and related combat requirements. To account for these findings, a reduction of \$36,440,000 is recommended. Nonetheless, the Committee's recommendation provides sufficient funding for B-1 operations in 1995 to meet planned operating levels.

TF-coded fighter training.-The Committee's review of the Air Force's Companion Training Program and other TF-coded flying hour programs indicate the service has budgeted amounts in excess of those required to execute the training program as planned. A reduction of \$19,230,000 is recommended, aligning funding for these programs with flying hour plans assumed in the Air Force request.

Noncombat command base operations.-The Committee recommends reductions of \$35,930,000 for noncombat commands' base operations, aligning funding levels with changes in infrastructure and personnel supported. Data provided to Congress indicate that Air Force schoolhouse training infrastructure (buildings, runways, and so forth) will decrease by about 9 percent in 1995. After discounting for the effects of inflation, and allowing for real property maintenance funding and workload increases, it is clear that the Air Force overfunded its base operations program by about 7.3 percent; thus, reductions are made accordingly.

F-16 DT&E/ICS/PGSE.-Information supplied by the Department of Defense indicate that funding for F-16 development, test, and evaluation and related programs was inadvertently included in the Air Force's operation and maintenance budget request. Funding of \$70,700,000 is deleted from the "O&M" account; program content and funding levels for these programs are considered in the procurement and RDT&E sections of this report.

Second destination transportation.-Air Force military personnel end strength in Europe will reach a level below that anticipated in the Air Force's fiscal year 1995 operation and maintenance request. As such, amounts requested for second destination transportation are adjusted to account for the resulting decrease in transportation requirements for 1995. A reduction of \$1,300,000 is proposed.

SAC, p. 72-73

TITLE III

PROCUREMENT

ESTIMATES AND APPROPRIATION SUMMARY

The Department of Defense fiscal year 1995 title III procurement budget request totals \$42,698,919,000. This request is \$1,964,159,000, or approximately 4.4 percent, below the amounts appropriated in fiscal year 1994.

The accompanying bill recommends a total of \$42,708,049,000 in new budget authority. The total amount recommended is an increase of \$9,130,000 to the fiscal year 1995 budget request and \$310,384,000 below the House allowance. The following table summarizes the procurement budget estimates, the Committee recommendations, and the House allowances.

SAC, p, 105

[In thousands of dollars							
Recommendation vers							
	Item	Budget	House	Committee	Budget	House	
		request	allowance	recommendation	request	allowance	
Army:							
	Aircraft	1,041,581	1,264,198	1,062,581	+21,000	-201,617	
	Missile	593,995	728,095	707,895	+113,900	-20,200	
	Weapons and tracked combat vehicles	919,786	1,001,873	1,129,514	+209,728	+127,641	

	Ammunition	844,644	1,274,644	877,761	+33,117	-396,883		
	Other	2,690,233	2,348,806	2,646,048	-44,185	+297,242		
	Total, Army	6,090,239	6,617,616	6,423,799	+333,560	-193,817		
Navy:								
•	Aircraft	4,786,265	4,820,442	4,531,789	-254,476	-288,653		
	Weapons	2,092,671	1,969,336	1,858,200	-234,471	-111,136		
	Ammunition, Navy and Marine Corps	439,810	493,810	432,815	-6,995	-60,995		
	Shipbuilding and conversion	5,585,397	5,471,369	5,528,974	-56,423	+57,605		
	(By transfer)		(1,200,000)	(1,200,000)	(+1,200,000)	ŕ		
	Transfers to SCN (transfer out)							
	Other	3,319,418	3,271,088	3,309,698	-9,720	+38,610		
	Marine Corps	422,178	452,178	403,410	-18,768	-48,768		
	Total, Navy	16,645,739	16,478,223	16,064,886	-580,853	-413,337		
Air Ford	ce:							
	Aircraft	6,747,599	6,182,199	6,571,524	-176,075	+389,325		
	Missile	4,112,620	2,758,285	3,620,055	-492,565	+861,770		
	Ammunition	279,553	278,681	283,173	+3,620	+4,492		
	Other	7,078,253	6,886,613	6,897,696	-180,557	+11,083		
	Total, Air Force	18,218,025	16,105,778	17,372,448	-845,577	+1,266,670		
Defense	agencies	1,744,916	3,020,616	1,894,916	+150,000	-1,125,700		
National	Guard and Reserve equipment		796,200	952,000	+952,000	+155,800		
	Production Act purchases							
	Total, procurement	42,698,919	43,018,433	42,708,049	+9,130	-310,384		
	(By transfer)		(1,200,000)	(1,200,000)	(+1,200,000)	ŕ		
	SAC, p. 105-106							

INFORMATION TECHNOLOGY SYSTEMS

The Department of Defense information technology budget request for fiscal year 1995 is \$9,782,249,000. The Committee recommends providing \$9,650,949,000 which is \$131,300,000 below the budget request. The House recommends \$9,519,568,000.

The Committee shares the concerns identified by the House Subcommittee on Defense Appropriations and Committee on Armed Services. The Committee is also aware of findings reported and briefed by the General Accounting Office on necessary actions to improve the Department of Defense information technology programs. The Committee remains concerned over the mixed success in implementing the corporate information management [CIM] initiative.

The CIM initiative is a major undertaking to improve defense operations and business practices in all functional areas through the managed migration of information systems, development of standard data elements, reengineering of business processes, and design of a standard defense infrastructure of computing and communications capabilities. The Committee recognizes the complexity and magnitude of this effort. Nevertheless the Committee's conviction is that an initiative

like CIM is a requirement for the Department as it restructures to meet the challenges of the new world order, and therefore, CIM must be implemented aggressively but in a systematic fashion.

The Committee, therefore, expects the Department to continue to exercise stronger management oversight to improve CIM performance. The Committee is encouraged by the Department's recent action to establish a new management structure which includes an Enterprise Integration Executive Board and an Enterprise Integration Corporate Management Council. The Department also recently issued the CIM strategic plan and the enterprise integration implementation strategy which highlights the Department's actions to accelerate the CIM initiative. The Committee expects, however, more progress in coordinated joint efforts and aggressive implementation of CIM initiatives in order to maximize the return on investments and reduce costs. The Committee also directs the Department of Defense to collaborate with the civilian components of Government, such as the Department of Commerce and General Services Administration, on information technology development and modernization initiatives to ensure cost-effective migration into the new era of a national information superhighway.

BASE OPERATIONS INFORMATION SYSTEMS

The General Accounting Office has informed this Committee of concern over the development, by each of the services, of numerous stove-pipe solutions for the modernization of various automatic base operations information management systems. Specific concerns include the absence of a single Defense official within the Office of the Secretary of Defense, accountable to manage or assure that these programs are not duplicative and are integrated in the most economical and efficient way. Also, there has been little or no effort to determine the common base operations functional data/information needs nor has any effort been made to migrate to an integrated automated system with Department of Defense-wide applications. As a result, the GAO has concluded that these programs are not consistent with or supportive of Defense's implementation of the corporate information management [CIM] initiative. The Committee, therefore, recommends a slowdown in procurement and fielding of these systems to allow more time to bring them in line with the CIM initiative.

AIR FORCE AUTOMATED MAINTENANCE SYSTEMS

For several years there has been continuing controversy regarding competing Air Force capabilities for managing maintenance processes at base level. In short, there has been a notable lack of progress in providing more accurate maintenance data and in eliminating duplicate data input requirements. It now appears that technology has overtaken this controversy. Neither of the competing systems, CAMS/REMIS and TICARRS, was deemed adequate by a recent Institute of Defense Analyses report to serve, by itself, as a long-term solution.

It has come to the Committee's attention that research by the Air Force's Armstrong Laboratory now provides the basis for an integrated maintenance data system comprised of an open system architecture, modern data base technology, and hand-held data input devices that can be used on the flightline. In fact, the Armstrong Laboratory approach seems to provide the greatest opportunity for a modern system to support the requirements of the Air Force into the next century. Such capability would include one-time data entry, interactive technical information, and integration of on-board diagnostics outputs.

It has been proposed that the Air Force demonstrate this concept and the Committee agrees. The Air Force should demonstrate this concept at one base for each of CAMS/REMIS and TICARRS in fiscal year 1995. If this proof of concept is successful, the Air Force is directed to prepare a business plan for a competitive acquisition to migrate from the existing closed architectures to a modern open system, interactive integrated maintenance data system [IMDS] with development to begin in fiscal year 1996. This business plan for implementing IMDS shall be consistent with the Air Force plans for base level systems modernization [BLSM].

Pending implementation of IMDS, the existing systems (CAMS/REMIS and TICARRS) should be maintained at a level of sufficiency to assure that aircraft and other weapon system readiness is not compromised. Accordingly, the Committee appropriates \$15,000,000 for continued support of TICARRS, \$5,000,000 for improvements and corrections to REMIS, and an additional \$8,500,000 to the "Research and development" account to conduct the proof-of-concept demonstrations. **SAC**, **p. 107-109**

INFORMATION TECHNOLOGY ADJUSTMENTS

The Committee recommends general reductions in operation and maintenance funding for information technology due to unjustified cost growth over the inflation rate. These reductions are recommended in anticipation of cost savings resulting from Department management improvements, elimination of duplicative efforts, improved project management, and firmer cost controls. The Committee also strongly recommends that the senior information resource management official of each service and agency manage and distribute the reductions to ensure the most cost-effective use of resources. The Committee considers the House reductions as being too severe and potentially punitive, the results of which will severely hinder the services and agencies' difficult tasks of maintaining readiness while downsizing, streamlining operations, and supporting other major Department management initiatives.

The Committee recommends the following adjustments to the budget request for information technology:

[In thousands of dollars]

	House adjustments	Committee recommendation
Operation and maintenance:	-	
Army:	22 000	
Sustaining base information system	-23,899	
STD Theater Army C^2 system	-14,399	
Military entrance processing command integrated resource system	-5,675	
Personnel enterprise system	-4,966	
Keyboard proficiency	+5,000	
General reduction	-89,804	-30,000
Total, Army O&M	-133,743	-30,000
Army Reserve:		
Personnel electronic records management system	-3,000	
General reduction, other than RCAS	-7,000	

Total, Army Reserve O&M	-10,000	
Army National Guard:		
Reserve component automation system	-3,000	
Distance learning	+7,500	
Total, Army Reserve O&M	+4,500	
, ,	,	
Navy:		
Electronic military personnel records system	-11,229	
Excessive budget growth	-36,000	
General reduction	-91,514	-30,000
Keyboard proficiency	+5,000	
Total, Navy O&M	-133,743	-30,000
Navy Reserve: Naval reserve information technology modern	+3,000	
Air Force:		
Local area network management, audit findings	-33,529	
CAMS/REMIS	+5,000	+5,000
TICARRS	+15,000	+15,000
Automated record management system	-1,471	- ,
Keyboard proficiency	+5,000	
General reduction	,	-30,000
Total, Air Force O&M	-10,000	-10,000
Defensewide:		
DISA sustaining base information system	-1,924	
Transfer Ada Joint Project Office to RDT&E	-10,800	
JEDMICS	-13,500	-13,500
General reduction	-50,000	-30,000
Total, defensewide O&M	-76,224	-43,500
Total, Department of Defense O&M	-356,210	-113,500
Other procurement:		
Army:		
Information systems	-11,000	+6,200
STAMIS	-21,850	,
ADP equipment	-56,032	-12,000
		IX-9

Sustaining base information system	(-35,254)	
General reduction poor budget execution	(-15,000)	
Strategic logistics system	(-2,800)	
Personnel electronic records management system	(-2,978)	
Reserve component automation system	+66,900	
Total, Army, other procurement	-21,982	-5,800
Navy: Computer Acquisition Program (EMPRS)	-31,800	
Air Force:		
Automatic data processing equipment, AFC2S	-4,189	
Automatic data processing equipment, transfer from operation and maintenance		+4,500
Base level data automation program		-3,000
Total, Air Force, other procurement	-4,189	+1,500
Procurement, defensewide:		
JEDMICS	-13,500	-13,500
Naval Reserve information technology modernization	+10,000	
Automated document conversion	+30,000	
High performance computer modernization, transfer from RDT&E	+130,000	
Automated information system equipment	-5,000	
Total, defensewide procurement	+151,500	-13,500
Total, Department of Defense procurement	+93,529	-17,800
Grand total, Department of Defense	-262,681	-131,300

SAC, p. 109-111

AIRCRAFT PROCUREMENT, AIR FORCE

Appropriations, 1994	\$6,662,934,000
Budget estimate, 1995	6,747,599,000
House allowance	6,182,199,000
Committee recommendation	6,571,524,000

The Committee recommends \$6,571,524,000, a reduction of \$176,075,000 from the budget request and \$389,325,000 above the House allowance. This appropriation finances the construction, procurement, modernization, and modification of aircraft and equipment, including armor and armament, specialized

ground-handling equipment, and flight training simulators, spare parts, and accessories; specialized equipment; and expansion of public and private plants, Government-owned equipment and installation.

COMMITTEE RECOMMENDED PROGRAM

The Committee recommended program for Air Force aircraft includes funds to purchase 6 C-17's, 2 JSTARS aircraft, 3 joint primary aircraft trainers, and 32 T-1 trainers. Additionally, support is provided for B-1 and B-2 bombers, the bomber industrial base, and modification programs. Support equipment is purchased for a variety of aircraft. The specific adjustments for this account are detailed in the table below and described in the text which follows.

SAC, p. 181

Classified programs.-The Committee has recommended other adjustments in classified programs which are displayed in the tables and discussed in the classified report.

SAC, p. 190

Aging airlift replacement.-The National Guard currently operates four aging C-22B aircraft, which support National Guard missions worldwide. These aircraft must be retired soon, due to increasing operating costs, failure to meet stage 3 noise limitations and aircraft age. The Committee urges the Air Force and the Air National Guard to evaluate replacement of these limited capability aircraft with multiconfigured C-20G aircraft. The Guard could sustain the existing mission requirement with just two C-20G aircraft, versus the four C-22B jets. The National Guard could realize savings of up to \$3,000,000 annually with each two-for-one replacement of the C-22B. The Committee requests the Director of the Air National Guard to provide the Committee a comparison of operating costs, mission range, and cargo carriage between the C-20G and the C-22B.

SAC, p. 190

WEAPONS PROCUREMENT, AIR FORCE

Appropriations, 1994	\$3,899,170,00005
Budget estimate, 1995	4,112,620,00005
(Transfer to procurement of ammunition, Air Force)	(279,553,000)
House allowance	2,758,285,00005
Committee recommendation	3,620,055,00005

The Committee recommends an appropriation of \$3,620,055,000 for the "Weapons procurement, Air Force" account for fiscal year 1995. This recommendation is \$492,565,000 below the President's budget request but \$861,770,000 above the House allowance.

This appropriation provides financing for the construction, procurement, and modification of missiles, rockets, spacecraft, and related equipment, including investment and repair parts, ground-handling equipment, and training devices; and the expansion of public and private plants, Government-owned equipment, and installations.

SAC, p. 190

PROCUREMENT OF AMMUNITION, AIR FORCE

Appropriations, 1994	\$290,749,00005
(Transfer from other procurement, Air Force)	(290,749,000)
Budget estimate, 1995	279,553,00005
(Transfer from weapons procurement, Air Force)	(279,553,000)
House allowance	278,681,00005
Committee recommendation	283,173,00005

The Committee recommends an appropriation of \$283,173,000 for the "Procurement of ammunition, Air Force" account. The recommendation is an increase of \$3,620,000 above the budget request and \$4,492,000 above the House allowance.

This appropriation finances the acquisition of ammunition, ammunition modernization, and ammunition-related material for the Air Force.

SAC, p. 197-198

OTHER PROCUREMENT, AIR FORCE

Appropriations, 1994	\$7,346,501,00005
(Transfer to procurement of ammunition, Air Force)	(290,749,000)
Budget estimate, 1995	7,078,253,00005
House allowance	6,886,613,00005
Committee recommendation	6,897,696,00005

The Committee recommends an appropriation of \$6,897,696,000 for the "Other procurement, Air Force" account. The recommendation is a decrease of \$180,557,000 from the budget request but \$11,083,000 above the House allowance.

This appropriation provides for the procurement of weapons systems and equipment other than aircraft and missiles. Included are munitions, other weapons, vehicles, electronic and telecommunications systems for command and control of operational forces, and ground support equipment for weapons systems and supporting structure.

SAC, p. 200-201

VEHICULAR EQUIPMENT

Armored sedan.-The Air Force has requested \$469,000 for the overseas purchase of two replacement armored sedans. The Committee recommends denying this request due to price increases from the single available source. The Committee has been informed that a second source will become available in fiscal year 1996. The House recommends denial of this request.

60K A/C loader.-The Air Force budget request includes \$29,329,000 for the procurement of 60,000 pound aircraft (60K A/C) loaders. The loader will augment and ultimately replace three types of older loaders. The Committee recommends \$15,500,000, a reduction of \$13,829,000 from the budget request and House recommendation.

The Air Force has informed the Committee that initial operational test and evaluation is scheduled in May 1996 on the first two low-rate-initial production loaders from the fiscal year 1994 production. Also, the final technical data package will not be available until after fiscal year 1995, and the unit cost has increased significantly over the design estimate. As a result the Air Force has reduced the quantity of loaders planned for procurement in fiscal year 1994 from 19 down to only 8 loaders to stay within budget, and the fiscal year 1995 budget request would have funded only 15 loaders instead of the planned 27. The Committee's recommendation for reduced funding is made to minimize production risks. The slowdown in production should allow more time to test, update and finalize design, and refine manufacturing processes to improve cost controls. The Air Force has informed the Committee that the reduced funding is sufficient to continue low-rate production in fiscal year 1995 at the contracted minimum of five loaders.

SAC, p. 208

OTHER ADJUSTMENTS

The Committee disagrees with the following adjustments to the budget request contained in the House allowance:

[In thousands of dollars]

			Collin	
			recomme	endation
			compai	red to-
Budget	House	Committee	Budget	House
request	allowance	recommen-	request	allowance
•		dation	-	
	10,800			-10,800
	-20,900			+20,900
2,423	1,000	2,423		+1,423
	5,000			-5,000
16,081		16,081		+16,081
25,810		25,810		+25,810
45,547	32,400	45,547		+13,147
29,558	12,000	29,558		+17,558
390		390		+390
18,850	18,100	18,850		+750
11,667	10,667	11,667		+1,000
7,736	7,000	7,736		+736
	2,423 16,081 25,810 45,547 29,558 390 18,850 11,667	10,800 -20,900 2,423 1,000 5,000 16,081 25,810 45,547 32,400 29,558 12,000 390 18,850 18,100 11,667 10,667	request allowance recommendation 10,800 -20,900 2,423 1,000 2,423 5,000 16,081 25,810 45,547 32,400 45,547 29,558 390 18,850 11,667 10,667 11,667	Rudget House Committee request allowance recommendation 10,800 -20,900 2,423 1,000 2,423 5,000 16,081 16,081 25,810 25,810 45,547 32,400 45,547 29,558 12,000 29,558 390 390 18,850 18,100 18,850 11,667 10,667 11,667

Committee

Items less than \$2,000	4,304	3,304	4,304		+1,000
Natural gas utilization equipment		5,000			-5,000
Mobility equipment	12,807	8,507	12,807		+4,300
Items less than \$2,000	18,244	12,144	15,908	-2,336	+3,764
	SAC, p. 210				

PROCUREMENT, DEFENSEWIDE

 Appropriations, 1994
 \$1,810,039,000

 Budget estimate, 1995
 1,744,916,000

 House allowance
 3,020,616,000

 Committee recommendation
 1,894,916,000

The Committee recommends an appropriation of \$1,894,916,000, an increase of \$150,000,000 to the budget estimate but \$1,125,700,000 below the House allowance.

This appropriation provides for procurement of capital equipment for the Defense Communications Agency, the Defense Investigative Service, the Defense Mapping Agency, the Defense Logistics Agency, and other agencies of the Department of Defense. The 1994 program includes procurement of automatic data processing equipment, mechanized material handling systems, general and special purpose vehicular equipment, communications equipment, and other items.

SAC, p. 210-211

DEFENSEWIDE NATURAL GAS CONVERSION

The Energy Policy Act of 1992 and subsequent Executive orders require the Federal Government, subject to availability of funding, to increase use of alternate fueled vehicles. To assist in meeting these objectives, the Committee has provided additional funding to allow each of the services to procure natural gas vehicles. The Committee also approves the use of this increase for the procurement and installation of natural gas utilization equipment to demonstrate natural gas conversion technologies.

The existing acquisition process could require significant effort on the part of the services to efficiently coordinate purchases with other departments and agencies. The Committee, therefore, recommends centralizing all Defense procurement funding for natural gas conversion under a defensewide appropriation. Included are natural gas vehicles, and other nondevelopmental natural gas chillers and fuel cells for air conditioning, heating, and electrical power generation.

Furthermore, Federal and private investments in electric vehicle technologies have supported efforts to improve the performance and reduce the cost of electric and hybrid electric vehicles. The Committee believes these developments also can best be implemented in the Federal fleet by consolidating new and conversion electric vehicle purchases within the "Defensewide" account. Thus, the Committee also approves the use of the recommended funding increase for the purchase of hybrid electric vehicles for use by the Department of Defense.

The Committee recommends providing \$25,000,000 for the Electric Vehicle and Natural Gas Conversion Acquisition Program. The Committee directs the Deputy Under Secretary of Defense for Environmental Security to plan, program, budget, coordinate, and acquire electric vehicles, natural gas vehicles, and natural

gas equipment for the services and Defense agencies. The Committee also directs that these funds shall not be obligated until the Deputy Under Secretary of Defense for Environmental Security has provided the congressional Defense committee with a comprehensive acquisition program plan for the fiscal year 1995 funds.

SAC, p. 216-217

The Committee disagrees with the following adjustments to the budget request contained in the House allowance:

[In thousands of dollars]

					nendation
				compa	ared to-
Item	Budget	House	Committee	Budget	House
	request	allowance	recommen-	request	allowance
			dation		
Supercomputers		130,000			-130,000
Items less than \$2,000,000	74,010	24,010	74,010		+50,000
Automated information system equipment	15,402	10,402	15,402		+5,000
Other capital equipment	28,531	23,531	28,531		+5,000
Items less than \$2,000,000	4,000	2,000	4,000		+2,000
Navy TMD	14,496		14,496		+14,496
C-130 modifications	65,661	58,361	65,661		+7,300
MH-47/MH-60 modifications	10,666	5,966	10,666		+4,700
PC, Cyclone class	12,380	18,180	12,380		-5,800
Defense satellite communications system (Army)		104,536			-104,536
Fleet satellite communication [MYP]		125,480			-125,480
Spaceborne equipment [COMSEC]		2,092			-2,092
Global positioning [MYP]		134,831			-134,831
Global positioning [AP-CY] [MYP]		55,352			-55,352
Space shuttle operations		103,518			-103,518
Space boosters [AP-CY]		29,000			-29,000
Medium-launch vehicles		120,480			-120,480
Medium-launch vehicles [AP-CY]		28,564			-28,564
Defense meteorological satellite program		29,159			-29,159
Defense support program [MYP]		363,959			-363,959
Defense satellite communications system		20,185			-20,185
Ionds [MYP]		30,649			-30,649
Ionds [MYP] [AP-CY]		9,954			-9,954
Defense support program		24,102			-24,102
Defense meteorological satellite program		15,000			-15,000

Committee

Natural gas vehicles 10,000 -10,000

SAC, p. 217-218

NATIONAL GUARD AND RESERVE EQUIPMENT

The Committee recommends a funding level of \$952,000,000 for National Guard and Reserve dedicated equipment. This recommendation is \$952,000,000 above the budget request and \$155,800,000 above the House allowance.

The Committee requests that the Chief of each National Guard and Reserve component receiving such funds, allocate them to enhance, to the greatest extent possible, the military capability of their respective units. In addition, a report is to be provided to the Senate and House Committees on Appropriations and Armed Services on the items of equipment to be procured with such funds within 120 days after the date of enactment of this act.

SAC, p. 218

AIR FORCE RESERVE

Miscellaneous equipment.-The Committee recommends \$75,000,000 for the procurement of unspecified miscellaneous equipment purchases to improve the readiness ratings of Air Force Reserve units.

SAC, p. 222

AIR NATIONAL GUARD

Miscellaneous equipment.-The Committee recommends \$55,000,000 for the procurement of unspecified miscellaneous equipment purchases to improve the readiness ratings of Air National Guard units.

National Guard and Reserve aircraft.-The Committee recommends \$475,000,000 for the acquisition of tactical transport aircraft to support Reserve and National Guard missions. The Committee expects the Chief of the Reserve components to submit a plan identifying the specific type and quantity of aircraft to be purchased with these funds and the specific missions to be supported by these assets to the House and Senate Committees on Appropriations and Armed Services not later than January 15, 1995.

OTHER ADJUSTMENTS

The Committee disagrees with the following adjustments to the budget request contained in the House allowance:

[In thousands of dollars]

				Com	mittee	
				recomm	nendation	
				compared to-		
Item	Budget	House	Committee	Budget	House	
	request	allowance	recommen-	request	allowance	
			dation			
Army Reserve:						
Engineer equipment		15,000			-15,000	
Automatic building machines		2,500			-2,500	
M-915/M-916/heavy dump trucks		7,500			-7,500	
5-ton flatbed trailers		4,300			-4,300	
Navy Reserve:						
C-130 aircraft		67,800			-67,800	
P-3 upgrade		42,000			-42,000	
MIUW van upgrade		10,000			-10,000	
Air Force Reserve:						
Small arms simulator		5,000			-5,000	
C-130H aircraft		67,800			-67,800	
KC-135 reengining		24,000			-24,000	
Army National Guard:						
UH-60Q helicopter upgrade kits		25,000			-25,000	
Night vision devices and drivers night viewer		17,000			-17,000	
M-109A5		12,000			-12,000	
FAASV		42,000			-42,000	
ACE		40,000			-40,000	
External auxiliary fuel tanks		2,000			-2,000	
Huey SLEP		3,000			-3,000	
M-915/M-916/Heavy dump trucks		7,500			-7,500	
Air National Guard:						
C-130 aircraft		203,400			-203,400	

KC-135 reengining	24,000	-24,000		
KC-135 radar modifications	5,000	-5,000		
SAC n 222-223				

TITLE IV

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

SUMMARY OF COMMITTEE ACTION

The fiscal year 1995 Department of Defense budget request for research, development, test, and evaluation [RDT&E] totaled \$36,225,013,000. Title IV of the accompanying Senate bill contains \$35,405,174,000, a reduction of \$819,839,000, or about 2.3 percent from the budget estimate. The recommended allowance is \$213,683,000 above the fiscal year 1994 appropriation for RDT&E in title IV. An additional \$134,339,000 for RDT&E is reduced from the bill through a recommended general provision, section 8054, governing funding for defense federally funded research and development centers [FFRDC's], university-affiliated research centers, and non-FFRDC consultants. The following table summarizes the budget estimates and Committee recommendations:

[In thous	ands of dollars]		
	Budget	Change from	
	estimate	recommendation	budget
RDT&E, Army	5,260,082	5,304,329	+44,247
RDT&E, Navy	8,934,718	8,790,331	-144,387
RDT&E, Air Force	12,349,362	12,151,011	-198,351
RDT&E, defensewide	9,416,855	8,922,649	-494,206
Director of Test and Evaluation	251,495	224,353	-27,142
Director of Operational Test and Evaluation	12,501	12,501	
Total, title IV, RDT&E	36,255,013	35,405,174	-819,839
Section 8054 FFRDC general reduction		-52,650	-52,650
Section 8054 university affiliated research		-19,055	-19,055
centers general reduction			

PRINCIPAL COMMITTEE OBSERVATIONS

SCIENCE AND TECHNOLOGY ADVANCED DEMONSTRATIONS-ADVANCED CONCEPT TECHNOLOGY DEMONSTRATIONS

For the past 2 years, the Committee has expressed serious reservations about the magnitude, scope, pace, direction, and cost of the science and technology advanced technology demonstrations [ATD's] requested in the "RDT&E" accounts. Chief among these deficiencies were high costs, and the fact that many of the ATD's would not result in actual military capability because the armed services were unwilling to budget for continued development or deployment.

Since last year, the Department of Defense has attempted to address some of the Committee's concerns by creating a new category of technology demonstrations called advanced concept technology demonstrations [ACTD's]. The ACTD's are a subset of the much larger number of ATD's which remain.

By emphasizing early user involvement in the planning and executing of the ACTD's, the Department has taken a positive step. Nevertheless, the costs projected for the ATD's and the ACTD's remain high for both fiscal year 1995, and the rest of the Future Years Defense Program. In addition, the Department still has no assurance that the users are willing to support maintaining any residual operational capability after the RDT&E funds allocated for the ACTD's no longer are available. The Department also appears to be down-playing the logistics and other military complexities of operating even user-friendly, one-of-a-kind systems.

Thus, the viability of the ACTD's, and of the still-ongoing ATD's, remains militarily and fiscally uncertain. The Committee urges the Department to be extremely selective and conservative in initiating ACTD's until more experience has been gained as to their advantages and disadvantages. In this regard, the Committee is concerned about the growing number of ACTD's which are being promoted by the services, and which are being considered by the Office of the Secretary of Defense for the future.

The complex development required for some of these undertakings suggests that they may not be appropriate for the streamlined acquisition procedures used for ACTD's. The potential for high cost also suggests that they should compete for funds against other service acquisition priorities.

In view of these concerns, the Committee has recommended modifications to the budget request for the ACTD's. These recommendations are described later in the RDT&E section. The Committee also directs that no other ACTD's may be initiated during fiscal year 1995.

SAC, p. 224-5

FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS [FFRDC'S]

The Committee remains perplexed that, despite high-level attention by the Defense Department leadership, the Department's attempts to better manage the defense federally funded research and development centers and to reduce their overall funding has yielded only limited results.

The Committee appreciates attempts by the Department's leadership to respond to the Committee's criticisms about the excessive funding and lax management of the FFRDC's. However, the Committee cannot understand why, so many months after the budget request was formulated and submitted, the Office of the Secretary of Defense [OSD] cannot, with precision, identify the amount of funds to be allocated for each defense FFRDC for fiscal year 1995. The updated version of the overall FFRDC management plan also is overdue.

The Committee has received no compelling information to convince it that maintaining the essential core capabilities of the FFRDC's-a goal it supports requires the funding and personnel levels claimed as desirable by the FFRDC's and their sponsors.

Therefore, the Committee recommends bill language to limit total FFRDC funding during fiscal year 1995 to \$1,300,000,000, and to reduce RDT&E spending by \$52,650,000, to reflect this ceiling. The Committee notes that both of these actions are identical to those approved in the Senate version of the National Defense Authorization Act for Fiscal Year 1995.

Due to concerns about the Pentagon's FFRDC management, however, the Committee recommends bill language which prevents any waiver to exceed the FFRDC spending ceiling. The Committee's recommendation does permit OSD to allocate resources among the individual FFRDC's.

The Committee also has been made aware of the large salaries paid to the officers of several of the FFRDC's, and of the high compensation levels received by FFRDC trustees, overseers, and senior advisory group members. Accordingly, the Committee recommends bill language which limits the maximum pay for FFRDC officers to no more than the amount received by the Secretary of Defense. A further provision restricts compensation for FFRDC high-level board and advisory group members to the per diem and travel expenses permitted for members of the Defense Advisory Board. The Committee recommends that these compensation-related provisions become effective July 1, 1995, so as to permit any individuals affected by them to adjust to their impact.

Furthermore, the Committee has received information indicating that fees received by some FFRDC's from the Federal Government have been used for some questionable purposes, such as paying costs which are otherwise not reimbursable by the Government (contributions to charities, universities, local governments, et cetera) or for cost sharing for projects funded by Government grants. In the former instance, the Government pays with one hand what it is prohibited from paying with the other. In the latter case, the principle of cost sharing becomes a fiction, as the Government pays both shares.

The Committee recommends bill language to eliminate the fees paid to defense FFRDC's and to prohibit them from using Federal funds for contributions and other purposes such as those previously discussed.

Bill language also is recommended to prevent the obligation of more than 50 percent of the fiscal year 1995 funds to be received by each FFRDC until the Defense Department submits to the congressional defense committees a copy of the revised master plan, including manpower and funding ceilings for fiscal year 1995 for each defense FFRDC.

SAC, p. 225-6

OTHER NONPROFIT DEFENSE RESEARCH INSTITUTIONS

Last year, the Committee articulated concerns that nonprofit federally funded research institutions and university affiliated research centers also represent a costly component of the defense RDT&E infrastructure which should be examined for possible economies and efficiencies. The Committee directed the Defense Department to provide a comprehensive report on expenditures at these research centers and institutions.

The report provided by the Pentagon supports a conclusion that these institutions should, at a minimum, be subject to increased management by the Office of the Secretary of Defense, and that funding constraints are warranted. Accordingly, the Committee recommends bill language to reduce RDT&E spending for these institutions by \$19,055,000 during fiscal year 1995.

A recommended general provision also requires the Secretary of Defense to submit, no later than April 1, 1995, an overall management plan for these institutions which: (1) establishes annual funding and manpower ceilings for each institution, and a total annual funding and manpower ceiling; (2) describes in detail what actions are being taken to increase OSD management and to reduce future annual funding; and (3) explains the contracting arrangement with each institution, including an evaluation of whether future efforts should be competitively awarded.

CONSULTANTS

The Committee's focus on reducing funding for defense federally funded research and development centers, other nonprofit federally funded research institutions, and university affiliated research centers is not intended simply to transfer spending to other entities. As the overall defense budget declines, the Committee believes that all major components of the defense infrastructure must be examined for reasonable reductions. In this regard, the private sector consultant community which services the Defense Department also must bear its share of the defense drawdown.

Accordingly, the Committee recommends bill language to reduce total funding during fiscal year 1995 for consultants not affiliated with defense FFRDC's, other nonprofit federally funded research institutions, and university affiliated research centers by \$62,634,000 and to reduce RDT&E spending by that amount.

UNIVERSITY RESEARCH GRANTS

The Committee commends the Department of Defense for making progress in resolving disagreements with universities over the hundreds of millions of dollars which may have been overbilled to the Federal Government under research grants managed by the Pentagon. However, the Committee has been informed that \$234,735,000 remains in dispute, as identified in audits for expenditures dating as far back as fiscal year 1981.

The Committee restates its strong belief that these disagreements should be settled more rapidly. Last year, the Committee initially recommended bill language which would encourage universities to repay such sums without delay. The Committee decided against pursuing this initiative last year in order to give the Defense Department leadership an opportunity to address this problem.

The Committee stands ready to assist the Department's leadership in attacking the problem during fiscal year 1995, including by considering later legislation to encourage more timely resolution of the billing disputes. At present, the Committee directs the Deputy Secretary of Defense to report on the status of efforts to resolve the outstanding audits and include an assessment of each educational institution's level of cooperation with the Department on these matters. The report, which is due no later than March 31, 1995, also must contain an action plan with particular steps to be taken on a specific timetable to settle the billing disagreements.

The Committee also recognizes the need to reduce overall funding provided for university research in view of the large growth in this area during the past years. However, the Committee disagrees with the \$900,000,000 reduction recommended in the House allowance, since such a 1-year decrease may disrupt

legitimate defense-related research and cause undue hardship for the university community. The Committee recommends a much more modest reduction as reflected in the following table:

[In thousands of dollars]

Army defense research sciences	-14,520
Navy defense research sciences	-7,549
Air Force defense research sciences	-34,805
Office of Secretary of Defense [OSD]-University Research Initiatives	-25,000

The recommended reductions constrain the Army, Navy, and OSD program elements to the fiscal year 1994 spending level and restore the Air Force program element to its historical average percentage of the service's science and technology budget.

OVERSIGHT, CONSULTATION, AND NOTIFICATION

The Committee reemphasizes the importance it places on funds being executed only for the purposes for which they were requested, justified, and appropriated. Therefore, the Committee requires that advance notification to, and advance consultation with, the Committee occur in the following cases: (a) for new program, project, or subproject starts or for significant realignments of funds within program elements or projects during the fiscal year; a significant realignment is any movement of funds exceeding \$4,000,000, or any movement of funds which would support a major change in program scope, content, structure, schedule or cost; (b) for below-threshold reprogrammings or funding reallocations which begin studies, cost and operational effectiveness analyses, and acquisition milestone documentation; (c) for reallocations of any unobligated or deobligated funds for any program terminated during fiscal year 1995 or proposed for termination in the fiscal year 1996 budget request.

INTERPRETATION OF REPORT LANGUAGE

The Defense Department and its components are directed to consult with the relevant Committee on Appropriations without delay if questions arise as to the accurate interpretation of language, guidance, or direction contained in a respective Committee report. With respect to questions regarding a conference report and joint explanatory statement of the committee of conference, the Department and its components are directed to consult without delay with both Committees on Appropriations. The Committee directs that these consultations occur prior to the Department or any of its components taking any action which might be affected by the language in question.

SPECIAL TERMINATION COST CLAUSES

Under normal acquisition procedures, the annual budget request for each significant RDT&E activity is required to include the full amount of funds needed to pay estimated, outstanding Government obligations if a contract is terminated. A certain amount of these funds normally may not be used until later in the year to maintain their availability for termination costs. However, the Defense Federal acquisition regulations permit the use of a special termination cost clause [STCC] under unique circumstances to reduce this annual budget allocation and to permit an earlier use of the funds for actual RDT&E obligations.

The armed services have used this special clause very sparingly in the past, and its employment requires senior management approval. Nevertheless, the Committee knows of an instance when the clause was used under circumstances which significantly weakened congressional oversight of the funds and program in question.

The Committee directs that components of the Defense Department consult with, and notify, the Committees on Appropriations, not less than 45 days in advance of any proposed execution of a special termination cost clause in the future.

SAC, p. 226-229

JOINT ADVANCED STRIKE TECHNOLOGY [JAST] PROGRAM

The Committee believes that there is duplication, excessive redundancy, and insufficient coordination among the many projects and program elements which contain activities to develop advanced and more affordable capabilities for current and future Air Force and Navy tactical combat aircraft. The Committee believes that the JAST Program has established a management and project evaluation structure which permits: (1) establishing priorities among all these efforts; (2) coordinating them to avoid duplication; and (3) focusing them to ensure that usable products are acquired.

The Committee concludes that the JAST Program is the appropriate mechanism for managing and guiding the Department's midterm and longer-term efforts to develop both more affordable and more advanced tactical aircraft technologies. Accordingly, the Committee recommends several modifications to the Air Force and Navy budget requests to eliminate funds for JAST-like projects outside the \$201,391,000 requested by the Defense Department and approved by the Committee for JAST for fiscal year 1995. The Committee also recommends an increase of \$40,000,000 to that amount for fiscal year 1995. The Committee regards the resulting large amount-\$241,391,000-as more than adequate to fund the highest priority/highest payoff projects during fiscal year 1995. The Committee also notes that the \$2,374,000,000 now programmed for JAST in fiscal years 1995-99 is a large enough amount for continuing such activities.

The JAST Program Office is directed to give high priority consideration to funding these projects originally outside its program which most contribute to achieving the goals of developing more affordable, more capable technologies which meet the most important military requirements.

The Committee also is convinced that the JAST Program is the most effective mechanism by which to manage an ASTOVL project. The JAST management should be more able to ensure that deliverables from the project are best configured to permit a decision whether an ASTOVL aircraft should be funded as one of the JAST Program's two flying prototypes.

To reflect these conclusions, the Committee recommends the following adjustments:

[In thousands of dollars]

Navy:

Air systems and weapons advanced technology:

ASTOVL

Moving spherical convergent flap nozzle

Advanced technology transition: Intelligent damage adaptive flight control

-4,320

Air Force:

Aerospace vehicle technology:	
Mission reconfigurable cockpit	-2,671
Subsystem integration technology [SUIT]	-4,000
Subsystem integration/vehicle management [SIVMAT]	-300
Fighter lift and control	-350
Aerospace structures:	
Advanced metallic structures	-6,396
Advanced composite structures	-5,604
Aerospace propulsion and power technology: Aerospace power technology/more electric aircraft	-3,327
Advanced fighter technology integration:	
Within visual range VISTA system upgrade	-5,100
Innovative aero controls	-4,000
Advanced avionics integration:	
Avionics integration technology	-8,187
Modular avionics subsystems technology	-7,629
Office of the Secretary of Defense:	
Manufacturing technology/manufacturing 2005:	
Military products from commercial lines (avionics)	-9,850
Manufacturing technology for multifunctional radomes	-2,150
Design/manufacture of low cost engines	-3,000
Advanced Research Projects Agency [ARPA]:	
Experimental evaluation of major innovative technologies [EEMIT]:	
STOVL	-20,014
GGP phase II	-7,500

The Committee further directs that the JAST Program Office consider funding several Navy core avionics tasks in avionics architecture, processors, interconnects, packaging, and advanced situational awareness and crew work reduction technology for a total of \$6,900,000. The House allowance added \$10,000,000 to the Navy's Air Systems and Weapons Advanced Technology Program element for emphasis on accelerating the advanced aircrew situational awareness system and other projects. The House allowance also reduced the same program element by \$14,221,000 to address the JAST-related technologies in this program element.

Other program elements reduced by the House for JAST-related proposes are: Air Force aerospace propulsion subsystems integration, -\$8,000,000; Air Force aerospace propulsion and power technology, -\$10,000,000; and ARPA EEMIT ASTOVL, \$20,014,000.

The Committee also directs that no funds from any Defense Department program element may be obligated or expended for the Airborne Shared Aperture Program, which was denied by the Congress during the fiscal year 1994 budget review, without prior consultation with, and notification to, the Committee.

The Committee directs that the restriction placed on the use of fiscal year 1994 funds for the advanced lightweight aircraft fuselage structure [ALAFS] project shall no longer apply.

SAC, p. 229-331

RDT&E INFRASTRUCTURE REDUCTIONS

The Committee directs that no test and evaluation installation be assessed a disproportionate share of any recommended program element budget reduction.

TACTICAL SPACE OPERATIONS

The Committee understands that several components of the Defense Department are considering various research, development, and demonstration activities regarding tactical space systems and tactical space operations. The Committee has been informed that no specific funds have been requested in the defense budget for such efforts.

The Committee directs that no funds available to the Defense Department during fiscal year 1995 from any appropriations account may be reallocated or obligated to support any tactical space operations research, development, or demonstrations without prior consultation with, and notification to, the congressional Defense committees.

SAC, p. 231

BALLISTIC MISSILE EARLY WARNING SATELLITE PROGRAMS

The Committee is concerned about the continuing lack of firm direction in the Department of Defense's [DOD] efforts to upgrade and modernize the Nation's ballistic missile early warning satellite capability. To date, the Pentagon has spent billions of dollars on several different programs, yet the operational user is not one step closer to obtaining a new capability. The matter has been reviewed by multiple panels, advisory boards, and Pentagon committees. Yet, even now, a new Defense Department group has been formed to once again evaluate options and chart a course to develop a new family of early warning satellites.

Based on DOD's experience with the Defense Support Program [DSP], a geosynchronous satellite network has often been the only approach considered for enhancing our early warning capability. Such a network makes it possible for a relatively small number of satellites to observe virtually the entire Earth. The geostationary orbit avoids pointing, tracking, and motion compensation problems inherent in a low-Earth-orbit satellite constellation. However, these satellites are large and expensive, with associated high launch costs.

With each passing year, it becomes more clear that DOD can only afford one early warning satellite system. However, the Defense Department continues to pursue three related projects to develop this new systems: (1) ALARM; (2) ALARM technology demonstrations; and (3) brilliant eyes [BE]. The Alert Locate and Report [ALARM] Program reflects a significant compromise in the capabilities planned for the follow-on early warning system [FEWS], primarily because of cost.

The new study specifically includes an evaluation of the brilliant eyes [BE] distributed satellite system. To some extent, many of the past reviews were flawed because they failed to consider BE or some derivative of brilliant eyes.

A low-Earth-orbit satellite can track missiles with greater precision simply because the satellite and missile are much closer. According to DOD studies, it may be possible to modify brilliant eyes satellites to perform both the early warning and the missile tracking functions necessary to support a national missile defense. While a brilliant eyes-like satellite could be much cheaper, many more of these satellites would be required compared to a DSP-like constellation. Nevertheless, the total system life cycle cost of BE may still be less expensive. BE also raises Anti-Ballistic Missile [ABM] Treaty compliance questions which must be resolved later in its development cycle.

In the end, DOD has been concerned about the risk of a relying on a network of low-Earth-orbit warning satellites. Even the recent DOD space launch study largely neglected the potential effects on the space launch infrastructure of emerging distributed satellite network concepts. Nonetheless, the commercial world appears to be ready to move forward as private funds are being devoted to several new satellite communications networks relying on distributed low-Earth-orbit satellites.

Having considered these and many other aspects of this debate, the Committee has developed the following recommendation which adopt portions of the Pentagon's current early warning strategy while making adjustments that would benefit the Defense Department and the Nation.

As part of the ALARM Program, DOD proposed a technology demonstration effort to fly one or two experiments which would allow evaluation of new sensor technologies. However, the program is underfunded to demonstrate more than one new technology, and its schedules prevent the demonstration experiments from realistically supporting the ALARM Program. Drawing on DOD's concept, the Committee proposes an ALARM Demonstration/Validation Prototyping Program which would lead to a fly-off between competing concepts. The Committee directs DOD to fly two individual satellites, or a similar number of prototype, geosynchronous early warning sensors, and associated hardware aboard existing satellites. In parallel, the Committee directs that the Brilliant Eyes Program be accelerated moderately to permit prototype satellite flight tests on the same schedule as the revised ALARM Dem/Val Program.

It is the expectation of the Committee that these experiments be launched around the fourth quarter of fiscal year 1997, roughly the same schedules previously planned for the technology demonstrations supporting ALARM. Under this plan, DOD could make an informed decision based on the results of all of these prototype system tests. The Defense Department should then be able to proceed with a lower risk Engineering and Manufacturing Development [EMD] Program, with the first satellite being delivered in time to avoid further DSP purchases beyond satellite 23.

To achieve these goals, the Committee has provided \$62,500,000 for the revised ALARM Demonstration/Validation Prototyping Program and \$150,000,000 for the Brilliant Eyes Program. The Committee directs that no more than one-half of these funds may be obligated prior to the Congress receiving a plan outlining the detailed implementation of this Enhanced Competition Development Program. Furthermore, the Committee directs that the full amount appropriated for the ALARM Program may not be obligated until the full amount of funds are obligated for the brilliant eyes prototyping effort. The Committee has provided no funds for duplicative ALARM generic technology development efforts.

Summary table [In thousands of dollars]

Committee recommendation

Advanced space-based TW/AA (dem val)

Brilliant eyes
ALARM dem/val prototyping
Technology demos/quick reaction capability [QRC]
Brilliant eyes
System Program Office/FFRDC Support

\$222,50006 (62,000) (150,000) (10,500)

SAC, p. 231-233

DEFENSE CONVERSION RDT&E PROGRAMS

The Committee continues to reserve judgment about the activities supported within this account, which is widely known as the Technology Reinvestment Program or TRP. Put simply, the Defense Department must receive some benefit from the investment of \$625,000,000. The investments to date raise questions about the military utility of the selected programs. For example, one of the largest TRP awards was to develop a low cost, small rocket booster. The DOD space launch modernization review recently concluded that the United States has too many niche-market boosters.

The TRP Program has come to be described by some as an alligator. That is, many DOD programs were killed to provide the material needs of this large investment program. Service concerns about TRP are certainly justified. Currently, ARPA is holding a focused competition for TRP funds in the areas of high density data storage systems, object technology for rapid software development and deployment, interoperability testbeds for the national information infrastructure, high definition systems manufacturing, low cost electronic packaging, uncooled infrared sensors, and environmental sensors. Many of these areas overlap or match efforts in ARPA's high performance computing [HPC] and intelligent systems and software projects. ARPA's fiscal year 1995 budget request for these projects totals \$337,356,000, a 26-percent real increase over fiscal year 1994. One must question the need to pour even more limited DOD resources into these areas.

The Committee reminds DOD and ARPA officials that, while the word "Defense" has been deleted from ARPA's title, these funds are defense dollars. DOD has an obligation to ensure that the projects supported address bona fide defense needs.

The Committee has denied funds for a separate program in the Navy which mirrors the TRP. The Committee has also denied funds for an Office of the Secretary of Defense pilot program to facilitate the diversification of Federal defense laboratories. Defense officials have indicated that it is possible for these initiatives to take place within the existing funds available for defense research and development.

The Committee has approved the budget request of \$625,000,000 for the Technology Reinvestment Program [TRP]. However, based on concerns previously outlined, the Committee directs that at least one Assistant Secretary for Research, Development, and Acquisition from one of the military services certify that each selected TRP project addresses a military use within the dual use context. Any notifications of TRP awards provided to the Congress should indicate which service official certified the military utility of each TRP project. The Committee has included bill language to implement this direction.

Finally, the Committee directs that \$150,000,000 of TRP funds shall be available only for focused competitions in areas designated exclusively by the Assistant Secretaries for Research, Development, and Acquisition of the military departments. Each service Assistant Secretary shall identify areas of interest for a focused competition and allocate \$50,000,000 among these interest areas. ARPA will administer the focused competition in accordance with the guidance provided by the service acquisition executives. The Committee believes this action will help assure that military needs are an integral part of the TRP Program. The bill recommended by the Committee includes language implementing this direction.

RDT&E INFRASTRUCTURE REDUCTIONS AND MANAGEMENT

The Committee has consistently expressed concerns about the size of the Department of Defense's research, development, test, and evaluation infrastructure. The DOD budget has fallen 35 percent since 1985, but only very limited adjustments have been made in the number and size of DOD laboratories and test ranges.

DOD officials note that test ranges and labs represent capital assets which could be irreplaceable once closed. The Committee understands this view. Similarly, test and evaluation officials provide data showing that very little of the DOD budget increases of the early 1980's went to test range modernization.

Thus far, DOD's response to all of these issues has been to continue to make across-the-board reductions at labs and test ranges. Indeed, the recent budget planning decisions mandate a 3- to 4-percent per year reduction in the RDT&E infrastructure. This builds on a 14-percent real decline in RDT&E funds since 1985. During this decline, budgets for the Advanced Research Projects Agency [ARPA] and the Ballistic Missile Defense Organization [BMDO] have grown significantly.

In fact, many look upon ARPA as the model approach for conducting defense research and development activities. However, many might differ on these issues, and there are clearly cases of ARPA-developed technologies which have not transitioned to operational users. Furthermore, ARPA's success is partially attributable to the service laboratories which execute a significant portion of ARPA's programs on a day-to-day basis. Some perceive the service laboratories as costly, level-of-effort activities which are disconnected from the service users. Thus, while some point to ARPA's relative lack of infrastructure, it must be clearly recognized that programs and developments do not materialize from thin air. While there are points to be made on all sides of this matter, most would agree that there is room for improved coordination and planning.

Within the recommendations on the DOD RDT&E budget request, the Committee has taken one small step toward adapting the RDT&E infrastructure to new fiscal and military realities. The Committee has taken a number of ARPA projects and transferred these efforts to the services. Also, a number of service efforts have been transferred to ARPA. The Committee's intent here is that the best practices and technologies at ARPA migrate into the service development community. Likewise, ARPA can become more attuned to the service labs and their responsibilities. Further, with the service labs striving to improve their links with operational users, all parties may gain new perspectives on critical future defense needs.

Unfortunately, the current fiscal environment is not likely to permit growth in the RDT&E accounts. Thus, many larger steps must be taken to plan for the future of defense RDT&E. A strategic plan for managing the drawdown of the Department of Defense RDT&E infrastructure is long overdue. The continued implementation of gradual, across-the-board reductions will only starve facilities and erode capability. DOD must establish priorities and make the difficult decisions which will ensure critical research, development, test, and evaluation skills and facilities are maintained. The Committee directs that, not later than March 31, 1995, the Director, Defense Research and Engineering, submit to the congressional Defense committees a strategic plan describing in detail such recommendations.

OZONE DEPLETING SUBSTANCES

The Army, Navy, and Air Force will spend an estimated \$75,000,000 this year to identify alternatives to freon. Meanwhile the commercial sector faces similar challenges and equal or greater urgency than the Department of Defense in identifying alternatives to ozone depleting substances. Yet, the Committee is not convinced that a coordinated development plan exists. Service specific freon alternates should be the exception and not the rule; however, it is not clear that current research will not lead to a specific, different alternate for each service. Furthermore, there is no indication that DOD is leveraging the private sector investment being made to meet the impending ban on ozone depleting substances.

The Committee directs the Office of the Deputy Undersecretary of Defense for Environmental Security to prepare a report detailing all DOD investments to develop alternates to ozone depleting substances. The report should specify the expenditure to date, the fiscal year 1996 request amount, the total cost to complete development of alternates, and the future cost to implement these solutions in DOD facilities and equipment. The report should describe each project, carefully noting differences and similarities between efforts. Finally, the report should provide a survey of private sector efforts and discuss how those efforts are being considered in meeting the legal requirements of the Defense Department. The Committee requests that this report should be completed and delivered by May 1, 1995.

DIGITAL TERRAIN GENERATION

The Defense Department is increasingly adopting simulation as a method of improving planning, development, test, and training efforts of the Pentagon. The Committee recognizes these positive steps. However, the Committee believes the Pentagon must make a determined effort to build a framework for simulation which ensures a degree of commonality between simulation efforts. Furthermore, the Pentagon must consider carefully how simulation is used. Many training activities and design efforts can be enhanced by simulation, but everyone must recognize that our ability to simulate has limits. In the end, there are some tasks which cannot be replaced by anything short of completing flight tests, firing live ammo in a ground exercise, or conducting command level exercises.

The Defense Modeling and Simulation Office [DMSO] can play a key role in addressing these issues and has begun to shift its focus to these concerns. However, DMSO must shift from its past advocacy of simulation to providing users a common framework for simulation tools and a realistic perspective of what simulation can accomplish. The defense budget now includes millions of dollars for simulation exercises. We must ensure that these efforts are not mere stage productions, effectively demonstrating video games on a grand level. For example, we have spent millions of dollars on warbreaker simulation efforts, but it is not clear that there has been a commensurate return on the investment in terms of a precise assessment of the capability of current military systems to attack mobile targets and a definition of the areas requiring future investment.

One area that merits DMSO focus is the development of digital terrain models. Digital terrain and atmospheric models are the foundation for many simulation tools. At this point in time, many ARPA and other projects are independently developing terrain models. However, it seems that in the long term, Defense Mapping Agency [DMA] data should provide the main ingredient for any digital terrain model. Information provided to the Committee indicates that there has been little interchange between DMA and terrain model developers.

DMA is entering a new era where the agency will begin to maintain digital maps accessible online by customers. The simulation community should work with DMA to include digital terrain requirements in DMA's digital data base development plans. Likewise, current modeling efforts should be planning to use DMA maps and data in developing digital terrain. It is not clear to the Committee that these possibilities have been fully exploited. The Committee has made reductions in the budget to slow the pace of digital terrain development efforts. The Committee directs DMSO to ensure that a broadly applicable approach to digital terrain generation is outlined.

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Consolidated training systems development.-The Committee recommends \$71,779,000, an increase of \$25,000,000 to the budget request for this program element. The additional funds shall be made available only to establish a shallow water range capability off the Navy's Pacific missile range facility at Barking Sands, Kauai, or at another appropriate location in the Hawaiian Island chain. The Committee directs that the establishment of this range should be in compliance with all the appropriate State and Federal environmental protection regulations and statutes.

The establishment of such a range will make a major contribution to maintaining the combat capabilities of Pacific Fleet aircraft, surface combatants, and submarines, especially in the area of littoral area antisubmarine warfare.

This program element also contains funds for the joint tactical combat training system [JTCTS] which is designed to provide a common aircraft training range system for the Navy and Air Force. The Committee recommends \$23,401,000, an amount equal to the budget request. In fiscal year 1994, the program was converted from a Navy initiative to a joint Navy/Air Force initiative. The Committee is concerned that there is not a coherent development plan and, therefore, directs that \$11,500,000 may not be obligated until the Navy and the Air Force submit a more detailed plan to the congressional defense committees defining the content and schedule for the program.

The House allowance endorsed \$49,779,000 for this program element.

SAC, p. 263 (Navy)

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, AIR FORCE

Appropriations, 1994	\$12,314,362,000
Budget estimate, 1995	12,349,362,000
House allowance	10,728,533,000
Committee recommendation	12,151,011,000

The Committee recommends an appropriation of \$12,151,011,000 for the Air Force's research, development, test, and evaluation programs, a decrease of \$198,351,000 to the budget request. The recommendation is \$1,422,478,000 above the House allowance.

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Advanced program evaluation.-The Committee recommends an increase of \$4,430,000 to this classified program element. The adjustment is addressed in the classified annex to this report.

Combined advanced applications.-The Committee recommends a decrease of \$12,960,000 to this classified program element. The adjustment is addressed in the classified annex to this report.

Airborne warning and control system [AWACS].-The Committee understands that the NATO AWACS Program Management Agency is considering possible upgrades to the NATO AWACS aircraft. The Committee directs that no funds may be obligated from this or any other Defense Department program element to contribute to a program for such upgrades, including studies, prior to consultation with, and notification to, the congressional Defense committees. This restriction also shall apply to any U.S. AWACS enhancements not currently part of the Block 30/35 and Radar System Improvement Program projects.

Air Force strike airpower requirements.-The Committee has received conflicting, incomplete, or uncertain information about the Air Force's future plans for heavy bombers, interdiction aircraft, and precision-guided munitions. The Committee directs that the Institute for Defense Analysis, a federally funded research and development center under the auspices of the Office of the Secretary of Defense, conduct a comprehensive review of Air Force strike airpower requirements, plans, and alternatives.

AN/ARC-222 radio.-The Committee understands that the Air Force may intend to simulate the operability of the ARC-222 radio on an F-16 fighter aircraft rather than conduct an operational test and evaluation of the system. The Committee believes that the service should successfully demonstrate that the radio meets all the appropriate F-16 flight worthiness, environmental, and interoperability requirements under actual close air support conditions before obligating funds for ARC-222 production.

The Defense Director of Test and Evaluation, in conjunction with the Air Force and Army, should develop test criteria to satisfy the Committee's evaluation requirements as stated above. The results of the testing should be forwarded to the Committee prior to the obligation of funds for ARC-222 production.

Future C-130 aircraft acquisition.-The Committee directs the Air Force to analyze C-130 aircraft fleet avionics commonality and standardization life-cycle costs in all evaluations of options for future C-130 aircraft acquisition. All options should include development, procurement, and operations and support costs with respect to the C-130/C-141 Autopilot Replacement Program. The Committee directs the Air Force to provide a report on future C-130 aircraft acquisition options not later than January 15, 1995.

High gear.-The Committee has been informed that the Air Force uses a process known as high gear to streamline acquisition in order to rapidly demonstrate or field an operational capability. The high gear project start-up guide states that, since high gear does not have a discrete funding line, candidate projects will be financed by reallocating resources from within an overall parent program or from external sources. Funding from major commands also may be used, and "if necessary, however, high gear projects will be initiated using program funds, and we'll (the Air Force) attempt to recover dollars later."

The Committee observes serious problems with this approach. First, there is the prospect for diverting development funds away from projects and purposes for which they were justified in a budget request and appropriated by the Congress. The Committee has repeatedly expressed opposition to such diversions. Second, the use of major command money raises the prospect of commingling RDT&E and operations and maintenance and procurement funds to accomplish RDT&E objectives. The Committee has been particularly critical of the Air Force for this practice in the past.

The Committee is aware of a proposal to use as much as \$30,000,000 in fiscal years 1994 and 1995 funds for a theater air defense development/operational demonstration which may duplicate functionally a previous operational concept demonstration. The funds identified for reallocation are in Air Force and Advanced

Research Projects Agency program elements. Another \$10,200,000 in fiscal years 1994 and 1995 funds is being considered for a new smart weapons guidance enhancement project. Funding for these activities was not included in the original fiscal year 1995 budget request.

The Committee recommends deleting \$15,000,000 in fiscal year 1995 funds sought in the Air Force Theater Missile Defense Program element, since they are no longer needed for the originally requested purposes. Another \$15,000,000 has been recommended for deletion in the ARPA Experimental Evaluation of Major Innovative Technologies [EEMIT] Program element.

The Committee also directs that no funds available to the Defense Department during fiscal year 1995 may be obligated for any high gear activity, before prior consultation with, and notification to the Committee.

The Committee further directs that a separate High Gear Program element be established in the "Air Force RDT&E" account for the fiscal years 1996-2001 Future Years Defense Program, and that any proposed high gear activities be funded through this mechanism.

Metal fatigue monitoring.-The Committee understands that significant developments in the implementation of electrochemical monitoring of metal fatigue could substantially improve the maintenance and support of DOD aircraft. The Committee expects the Under Secretary of Defense (acquisition and technology) to review advances in this field, including programs sponsored by the National Science Foundation, and to evaluate how these technologies could be utilized by the Department of Defense.

CLASSIFIED ADJUSTMENTS

The Committee recommends incorporating the following additional adjustments to classified programs, as explained in the classified annex to the Committee's report:

[In thousands of dollars]

				Committee reco	mmendation
				compared to-	
Item	Budget request	House	Committee	Budget request	House
		allowance	recommen-dation		allowance
Forest green	(1)	(1)	-500	(1)	(1)
Special activities	(1)	(1)	-115,900	(1)	(1)
Distant early warning [DEW] radar stations	2,608	2,068	-1,932	-4,000	-4,000
¹ Classified.					

HOUSE ADJUSTMENTS

The Committee disagrees with the following adjustments to the budget request contained in the House allowance:

[In thousands of dollars]

Committee recommendation compared to-

Committee recommendation

Item	Budget request	House allowance	Committee recommendation	Budget request	House allowance
Civil engineering and environmental quality	7,045	6,500	7,045		+545
Command, control, and communications	95,444	85,444	95,444		+10,000
Logistics systems technology	18,200	15,000	18,200		+3,200
Aerospace propulsion subsystems integration	29,941	21,941	29,941		+8,000
Advanced materials for weapon systems	19,900	21,400	19,900		-1,500
Personnel, training, and simulation technology	9,241	9,000	9,241		+241
Crew systems and personnel protection technology	16,600	17,700	16,600		-1,100
Space systems environmental interactions technology	4,200	17,700	4,200		+4,200
C ³ advanced development	9,925	10,925	9,925		-1,000
Advanced MILSATCOM	22,095		22,095		+22,095
Nuclear weapons support	5,637	3,637	5,637		+22,093
Night/precision attack	21,672	4,672	21,672		+17,000
Aircraft Engine Component Improvement Program	97,399	95,399	97,399		+2,000
MILSTAR LDR/MDR SAT COMM	607,248	75,577	607,248		+607,248
Armament/ordnance development	10,853	18,853	10,853		-8,000
Air base operability	9,580	5,606	9,580		+3,974
Systems survivability (nuclear effects)	2,786	3,000	2,786		+2,786
UHF satellite communications	20,879		20,879		+20,879
C-130J	20,077	5,000	20,079		-5,000
AF TENCAP	21,183	13,402	21,183		+7,781
USAF wargaming and simulation	19,110	14,110	19,110		+5,000
Mission planning systems	14,483	9,483	14,483		+5,000
Space subsystem technology	,	8,000	,		-8,000
Defense satellite communications system	30,876	,	30,876		+30,876
Information Systems Security Program	10,293	11,793	10,293		-1,500
Satellite control network	101,146	15,000	101,146		+86,146
Medium launch vehicles	21,042		21,042		+21,042
National airspace system (NAS) plan	30,980	20,980	30,980		+10,000
Upper stage space vehicles	3,663		3,663		+3,663
Defense Meteorological Satellite Program [DMSP]	21,135		21,135		+21,135
NCMC-TW/AA Systems	100,520	133,020	100,520		-32,500
NUDET detection system	10,140		10,140		+10,140
General reduction, university research		-92,000			+92,000
Civilian personnel pay raise and locality pay		7,700			-7,700
Civilian personnel understrength		-15,400	-5,972	-5,972	+9,428
Federal Workforce Restructuring Act			900	+900	+900

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RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, DEFENSEWIDE

 Appropriations, 1994
 \$8,838,690,000

 Budget estimate, 1995
 9,416,855,000

 House allowance
 9,419,955,000

 Committee recommendation
 8,922,649,000

The Committee recommends an appropriation of \$8,922,649,000 for the defensewide research, development, test, and evaluation programs, a decrease of \$494,206,000 to the budget request. The recommendation is \$497,306,000 below the House allowance.

The budget activities and programs funded under this appropriation are discussed below.

COMMITTEE RECOMMENDED ADJUSTMENTS

In-house laboratory independent research.-The Committee provides \$2,368,000 to continue the basic research efforts conducted by the Uniformed Services University of the Health Sciences [USUHS]. The Pentagon requested no funds for this program and the House provided no allowance to continue these efforts.

Historically black colleges and universities and other minority institutions. The Committee provides \$25,000,000, adding \$10,000,000 to the budget request. The Committee directs that these funds shall be available for other minority institutions as well as historically black colleges and universities. This direction reflects the Committee's longstanding intent regarding the use of these funds. Further, to remove any uncertainty, the Committee directs that tribal colleges shall be qualified to compete for these funds. The House provided an amount equal to the Senate allocation.

Focused research initiatives.-The Committee denies all funds sought to create a new program of basic research activities to be managed by the Office of the Secretary of Defense [OSD]. The Committee reiterates its view that OSD has adequate authority to improve the focus and direction of the \$1,225,199,000 in basic research funds requested in other service and defensewide program elements. The Committee supports OSD efforts to ensure that research investments address military needs but does not believe that establishing a new program is a necessary step. The Committee's action reduces the budget request by \$20,000,000. The House provided \$12,000,000 for these efforts.

University research initiatives.-This program element funds basic research activities in support of DOD's future needs. The "Principal committee observations" section of this report discusses Committee recommendations which affect this program element. In addition, the Committee approves an increase of \$20,000,000 for the Defense Experimental Program to Stimulate Competitive Research [DEPSCoR]. As a result of these recommendations, the Committee provides \$227,492,000, a decrease of \$5,000,000 compared to the budget request and \$7,500,000 versus the House allocation.

Defense research sciences.-The Committee approves \$90,706,000 for this program element which provides research funds to develop the fundamental technologies enabling new generations of military and commercial hardware systems. The Committee recommends a reduction of \$5,000,000 for the electronic sciences project to restrain the requested 41 percent real growth in these projects developing advance technologies for electronic and optical systems used in

information processing. The Committee provides an increase of \$8,000,000 and directs that these funds shall be available only for the Environmental Education Opportunities Program to assist certain employees of the DOD and the DOE adversely affected by the continuing drawdown. The Committee allocation is \$3,000,000 above the budget request and the House allowance.

Computing systems and communications technology.-This program element contains the funds budgeted by the Advanced Research Projects Agency [ARPA] to develop new generations of computers, supporting software, networking concepts, and communications capabilities. The Committee approves \$383,558,000, a reduction of \$36,050,000 to the budget request. The amount recommended is \$42,050,000 below the House allowance. The Committee's recommendation is composed of the following actions.

First, the Committee deletes \$3,900,000 for a simulation-based training initiative. These funds have been transferred to the Air Force which has ongoing training programs responding directly to the needs of military personnel. As discussed in the "Principal committee observations" section of this report, the Committee expects ARPA and the Air Force to work jointly on this project.

Second, the Committee has noted with interest certain focus areas within the ARPA High Performance Computing [HPC] Program. ARPA is investing over \$87,456,000 in prototype scalable systems, scalable image processing systems, information infrastructure, and high performance networking activities, within the \$357,400,000 of HPC-related ARPA investments. The requirements for these and other ARPA HPC efforts match exactly the capabilities under development at a recently formed high performance computing center established to concentrate on image information processing and other needs of the Department of Defense. Recognizing the need to leverage Federal investments and minimize duplication, the Committee directs that \$7,000,000 of the high performance computing project funds shall be made available only to the Maui High Performance Computing Center to allow this center to collaboratively support the HPC research and development efforts planned by ARPA in fiscal year 1995.

Third, consistent with the "Principal committee observations" encouraging greater cooperation between ARPA and the military services, the Committee recommends a joint program between ARPA and the Air Force's Rome Laboratory. The proposed effort would demonstrate decision support technology, including real-time mission planning, simulation on demand, three dimensional geographical information, real-time digital image transfer, and multimedia information utilities. The demonstration will rely on massively parallel computers and data bases interconnected by an existing prototype high speed optical fiber network. The Committee directs that \$7,000,000 of HPC project funds shall be made available to Rome Laboratory only for this cooperative demonstration.

Fourth, the Committee directs that \$7,500,000 shall be made available only to continue the Reuse Technology Adoption Program.

Fifth, the Committee transfers \$25,400,000 requested for counterproliferation programs to a new program element to be administered by ARPA.

Sixth, an increase to the budget request of \$1,750,000 is provided for the asset source for software engineering technology [ASSET]. The recommendation provides a total of \$3,750,000, the fiscal year 1994 amount, to continue ASSET activities and the Committee directs that these funds shall be made available only for ASSET.

Seventh, a reduction of \$11,500,000 is recommended in the manufacturing automation and design engineering [MADE] effort to hold the program to the fiscal year 1994 level. The requested funding increase would accelerate the development of technologies and processes for manufacturing electromechanical systems. These efforts would duplicate the flexible design and assembly of electromechanical systems [FDDAMS], a new start effort which the Committee has fully funded.

Eighth, an increase of \$6,000,000 is proposed for a competitive program to establish a metacomputing testbed as previously approved by the House. Consistent with language previously approved by the Committee, the testbed facility should be located in close proximity to and capable of supporting the considerable number of Defense Department and defense contractor organizations located in the Washington, DC, region. Furthermore, the Department should explore a location for this facility that will meet the need for advanced training and research in the field of computational sciences and informatics.

Ninth, consistent with the principal Committee observations encouraging greater cooperation between ARPA and the military services, the Committee transfers the hybrid signal processing from the "RDT&E, Navy" account.

Finally, the Committee deletes \$3,000,000 requested in the Comprehensive Test Ban Verification Readiness Program for development and testing of advanced computing architectures, data management techniques, process automation, data security, and visualization tools. These efforts duplicate the projects and missions of the High Performance Computing Program.

The Committee has also learned of advances in computer-based, high-resolution, full-motion digital video that will serve as the enabling technology for the collection, processing, analysis, production, and dissemination of high-resolution, real-time, or recorded visual information. Components of such a system could include optoelectronic digital cameras, optoelectronic digital projectors, and high-performance digital video servers. The Committee urges ARPA to evaluate the merits of a development program pursuing computer-based, high-resolution, full-motion digital video, which might be appropriately funded within ARPA's core R&D program or the competitive Technology Reinvestment Program [TRP].

The Committee is aware of the Applied Information Management Institute [AIM] Multimedia Applications Resource Center, an initiative that could provide ARPA with a test environment to deploy advanced data retrieval and enhancement technologies and to present information over broad-band delivery systems with the added potential for interactive response. The proposal would broaden and upgrade the skill base in advanced technology necessary for the Omaha region to support the information technology requirements of the U.S. Strategic Command and Offutt AFB, NE, and would fill a historic underrepresentation in the Northern Plains. The Committee urges the Defense Department to evaluate the merits of this proposal and to provide the resources to fund this effort on a cost-shared basis.

DOD counterproliferation initiative.-The Committee provides \$80,000,000 to initiate a coordinated research and development program which adapts existing defense technologies and, where necessary, develops new technologies to provide the United States with the ability to detect, monitor, and deter the proliferation of weapons of mass destruction. The Pentagon did not seek funds for this new program initiative and the House did not make a similar recommendation.

The Committee believes these funds can most efficiently and expeditiously be administered by ARPA. Consistent with action already taken by the Senate, the Committee directs that these funds shall only be obligated for projects specifically approved by the Joint Committee for the Review of Counterproliferation Programs. The Committee directs that the Department of Defense provide the congressional committees on Defense with a plan outlining the use of these moneys prior to obligation of any funds.

Tactical technology.-Projects to develop advanced military concepts for land vehicles, ships, aircraft, and missiles are supported within this program element. The Committee allocates \$101,243,000 for these programs, decreasing the budget request by \$10,100,000. The Committee recommendation is \$25,100,000 below the House allowance.

First, the Committee adds \$7,000,000 to continue ARPA's research efforts conducted through the Center of Excellence for Research in Ocean Sciences [CEROS].

Second, the Committee deletes \$10,000,000 from the Operations Other Than War [OOTW] Program allocated to a new start Demining Program. The budget request was not built based on a defined program. The Army has significant ongoing efforts in this area. Consistent with the "Principal committee observations" discussion, the Committee directs ARPA to work with the Army to ensure that the existing Army programs take full advantage of all available defense technologies.

Last, the Committee deletes \$7,100,000 sought to conduct interim demonstrations of simulation-based design [SBD]. The Committee has provided \$8,600,000 to initiate SBD prototype development. These costly interim demonstrations are not justified until SBD prototype development proceeds.

Integrated command and control technology.-The Committee provides \$67,950,000, the budget request amount, to continue pursuit of new display concepts and demonstration of display manufacturing technologies. The House allocation is \$25,000,000 above the Senate recommendation. The Committee believes that display technology programs are more than adequately funded when the fiscal year 1995 funds are combined with the supplements provided by the recent DOD reallocation of Defense Production Act [DPA] funds and the ongoing focused Technology Reinvestment Program [TRP] competition.

The Committee directs that within the funds available for the flat panel display initiative and the ARPA core display technology development program, \$15,000,000 be provided only for the development of next generation, monochrome, multicolor, and full color flat panel displays using thin film electroluminescent [TFEL] and active matrix [AMEL] electroluminescent technology.

Materials and electronics technology.-The programs in this account support a broad spectrum of defense-related needs ranging from combat casualty care to high temperature superconductors for future DOD electronic devices. The Committee approves \$242,853,000, an increase of \$18,025,000 to the budget request and of \$1,025,000 to the House allowance.

Of the additional funds, the Committee directs that \$17,000,000 shall be made available only to complete ARPA's development of a metal matrix composite model factory.

ARPA again proposed initiating a process synthesis effort to develop advanced manufacturing technologies for the semiconductor industry. The Committee believes that this project is more appropriately suited to the mission and objectives of the Sematech consortia program. Sematech develops long-term semiconductor manufacturing efforts for both military and civilian applications. Also, its members are the companies that supply the majority of the integrated circuits used in defense systems and participate on a cost-sharing basis. Therefore, the Committee deletes \$11,100,000 budgeted for the process synthesis project and transfers these efforts to Sematech.

The Committee has included an increase of \$4,125,000 only to continue the microballoon technology demonstration project. The Committee directs ARPA and the Air Force to establish a memorandum of agreement to guide the use of these funds and to ensure the transition of this technology to the Air Force in future years.

The Committee has also provided an increase of \$8,000,000 which shall be made available only to continue ARPA development of chemical vapor deposition [CVD] diamond.

The Committee has provided the requested funds for ARPA medical programs. The Committee notes that the Army also has an ongoing telemedicine demonstration and technology development effort which utilizes the unique facilities and capabilities of the Tripler Army Medical Center. Under the Akamai Program, emerging telemedicine concepts are being developed and demonstrated in the Pacific region where these efforts can provide reduced costs and improved

access to care for military personnel deployed to remote Pacific locations. Furthermore, as the only acute care facility serving all three services in Hawaii and the Pacific basin, Tripler is required to provide the full spectrum of medical care services to patients throughout the region.

The Committee notes the potential benefits of linking many of ARPA's current and planned medical efforts to the ongoing Army Akamai telemedicine project. The Committee directs ARPA to establish a memorandum of agreement [MOA] with the Army outlining areas of cooperation between the two programs. The Committee directs that no more than two-thirds of ARPA's fiscal year 1995 medical program funds may be obligated until the Committee has received the required MOA.

Last, the Committee is aware of a newly developed technology which provides a noninvasive, three-dimensional imaging capability for physicians. The multiorgan diagnostic imagery screening technology promises to improve our ability to diagnose conditions in the early stages when the prospects for successful preventive care are much greater. The Committee encourages ARPA and the Army to jointly evaluate the merits of establishing a clinical test bed program to evaluate the potential of this concept to reduce the cost and increase the quality of health care. Further, the system could alter the way the military approaches combat casualty care. The diagnostic system must be miniaturized to meet the mobility requirements of the battlefield medical support teams. The Committee believes this technology may be an ideal candidate for Technology Reinvestment Program [TRP] funds and urges ARPA's careful review of this new concept.

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Joint DOD-DOE munitions technology development.-The Committee provides \$19,496,000 to continue at the fiscal year 1994 level this program which cooperatively develops and applies technologies to enhance the lethality of DOD conventional weapons. The amount approved is \$5,081,000 above the budget request and \$4,919,000 below the House level.

Experimental evaluation of major innovative technologies.-This program element contains a broad mix of projects seeking to apply ARPA technologies and program management skills to current and anticipated military needs. The Committee approves \$493,164,000, a reduction of \$116,167,000 to the budget request and an amount \$156,653,000 below the House allowance. The Committee's recommendation reflects the following specific adjustments:

- (a) \$7,000,000, the budget request amount, is approved for the Speakeasy Program, and the Committee directs that these funds shall be made available only to continue development of the Speakeasy multifrequency radio;
- (b) \$5,600,000 is deleted from the integrated product and process design effort; ARPA officials indicated that they no longer plan to complete the activities which formed the basis of the budget request;
- (c) \$1,600,000 is added to the ARPA Mountain Top Program, and the Committee directs that these additional funds shall be used only to acquire the data storage and retrieval equipment which is necessary to permit the experiment data to be stored and processed using the supercomputing capabilities of the Maui High Performance Computing Center;
- (d) \$7,500,000 has been deleted from the guidance technology project for phase II global positioning system guidance package [GGP] efforts to transfer these activities as discussed in the "Principal committee observations" section of this report;
- (e) \$3,000,000 is denied for a new start Common Grid Program, so ARPA can investigate the possibility of exploiting already developed technologies before initiating a duplicative program;

- (f) \$4,000,000 of the battle management initiatives funding is deleted to reduce the request for this new start effort until ARPA better defines the objectives and requirements for simulating early entry scenarios;
 - (g) \$8,000,000 sought for undefined efforts to develop instrumented real systems is denied;
- (h) \$3,100,000 is deleted from the synthetic forces project to hold this program to the fiscal year 1994 level, since ARPA officials indicated that decisions are still being made on how to represent certain semiautomated forces, eliminating the need to provide 20 percent real growth;
- (i) \$4,800,000 is deleted from the synthetic environments project because portions of the requested increase in funding will be devoted to generating computer terrain for Germany, an unlikely battleground of the future;
- (j) \$8,500,000 is cut from the command and control information system effort, since ARPA deferred this program through a fiscal year 1994 reprogramming action, reducing the need for fiscal year 1995 funds;
- (k) \$23,200,000 is eliminated for the low-cost radar program which ARPA has completely revised relative to the effort originally presented to Congress, raising questions about the need for, and commitment to, this effort on the part of ARPA;
 - (j) \$4,800,000 requested for unspecified new start efforts within the internetted unattended ground sensors [IUGS] project is deleted;
- (k) \$20,104,000 is eliminated for the advanced short takeoff, vertical landing [ASTOVL]/conventional takeoff and landing [CTOL] common affordable lightweight fighter project as discussed in the "Principal committee observations" section of this report;
 - (1) \$8,000,000 which was identified as excess to firm program requirements is deleted from the Warbreaker Critical Mobile Targets Program;
 - (m) \$4,700,000 is shifted to the Air Force to effect the cooperative completion and transition of the multisensor target recognition system [MUSTRS];
 - (n) \$15,000,000 is deleted for recently defined demonstration efforts which are discussed elsewhere in the classified annex to this report;
 - (o) \$19,000,000 is added only to continue the Army virtual brigade project;
 - (p) \$20,463,000 is eliminated from the request for other classified programs as discussed in the classified annex accompanying this report; and
 - $(q) \$4,000,000 \ is \ added \ only \ to \ continue \ the \ large \ millimeter \ telescope \ [LMT] \ effort \ begun \ in \ the \ previous \ fiscal \ year.$

Regarding the Speakeasy Program, the Committee directs that the Army and Navy also fully fund their Speakeasy activities at the respective budget request amounts.

With regard to the proposed instrumented real systems effort, this activity represents an area for greater cooperation between ARPA and the military services as outlined in the "Principal committee observations" section of this report. The Committee is concerned that, in proposing this program, ARPA has not fully evaluated other force instrumentation systems which exist or are in development. The Committee directs that the Director, Defense Research and Engineering prepare a report identifying all instrumentation systems under development throughout the Department of Defense for either test and evaluation, simulation, or research and development purposes. The report should outline the capabilities of the systems, the funds spent to date, the total development cost, the procurement cost, and planned quantities. The report should be provided to the congressional defense committees no later than March 1, 1995.

Of the funds deleted for the internetted unattended ground sensors [IUGS] project, \$1,500,000 has been transferred to an Air Force precision air drop capability project. These funds will allow ARPA and the Air Force to work together to achieve mutual goals by adopting the best ideas of each organization.

The Committee is also aware of emerging concepts in advanced marine propulsion. This technology was competitively selected under the TRP Program. ARPA should keep the Committee informed on the progress made under this program.

Last, the Committee is concerned about the degree of coordination and cooperation among the services and ARPA on the development of automatic target detection and recognition [ATD/ATR] computer software tools. The Committee supports the Army, Navy, and Air Force initiatives to explore the application of ATD/ATR technologies to DOD reconnaissance/surveillance systems such as the Joint STARS aircraft. The Committee urges ARPA to work more closely with the Army, Navy, and Air Force to define a coordinated plan for developing and demonstrating ATD/ATR technology.

Physical security equipment.-The Committee approves \$19,809,000 to continue development of equipment which can be used to protect DOD weapons and installations. The total amount recommended reflects a reduction of \$1,600,000 to the budget request and a decrease of \$5,079,000 compared to the House allowance. The denied funds were sought to procure the security exercise evaluation system [SEES] for all Air Force users. This activity should not be funded in the "RDT&E" account.

Defense reinvestment [OSD].-The funding requested in this program element supports two activities. First, DOD sought \$45,000,000 to continue the Mentor Protege Program. The full budget request for this program has been transferred from the "Research, development, test, and evaluation, defensewide" account to the "Procurement, defensewide" account.

Second, the Committee deletes \$61,600,000 sought by DOD to provide cost sharing or matching funds for DOD laboratories to participate in or initiate defense conversion efforts similar to the ARPA Technology Reinvestment Program [TRP]. DOD indicated that 80 percent of these funds would go to industry, which mirrors the way DOD labs manage the R&D funds requested in respective service program elements. Furthermore, DOD labs are partners in a significant portion of the awards made under the ARPA TRP Program. Based on this information, the Committee is reluctant to provide funds to initiate yet another conversion-related program, further taxing valid service and defensewide programs to allocate funds for this effort. The Committee denies the full request.

These recommendations delete all requested funds from this program element. The House also deleted all funds in this account, transferring the funding to a new conversion account.

Defense reinvestment [ARPA].-The Committee approves \$625,000,000, the requested amount, for defense reinvestment programs. The House transferred the requested funds to a separate defense conversion account. The "Principal committee observations" section of this report contains specific recommendations affecting the execution of these funds.

The Committee directs that these funds shall be available only for the following specified activities and in the indicated amounts: (a) \$245,000,000 for dual-use technology partnerships; (b) \$105,000,000 for commercial-military integration partnerships; (c) \$80,000,000 for regional technology alliances; (d) \$30,000,000 for advanced manufacturing technology partnerships; (e) \$35,000,000 for agile manufacturing/enterprise integration; (f) \$30,000,000 for advanced material partnerships; (g) \$25,000,000 for defense manufacturing engineering education programs; (h) \$10,000,000 for the United States-Japan Management Training Program; (i) \$25,000,000 for manufacturing extension; and (j) \$40,000,000 for MARITECH.

The Committee is aware of a proposal to pursue development and demonstration of technologies which could support a future magnetic levitation transportation system. The proponents of this project indicate that many of the needed technologies can also support a wide range of defense applications. The Committee urges ARPA to carefully evaluate the proposed technology research efforts and to consider allocating \$2,000,000 for these activities.

Small business defense conversion guaranteed loans.-In accordance with action approved by the full Senate, the Committee establishes a new program element and provides \$27,400,000 to provide an increase in the funds available to the Small Business Administration to back loans for small business which have been involved in defense programs or otherwise affected by the decline in defense spending. The budget request did not include these specific funds and the House did not allocate funds for this purpose within the "RDT&E, defensewide" account.

Manufacturing technology [OSD].-The DOD budget request for this program element included funds for Army, Navy, Air Force, and Defense Agencies programs to reduce the cost and improve the procedures used to manufacture military products. The Committee's action transfers the funds sought for service-specific efforts into program elements within the respective service RDT&E accounts. The Committee approves \$21,900,000 within this program element for the projects planned by the Defense Logistics Agency. This action reduces the budget request for this program element by \$75,157,000 while providing \$21,900,000 more than the House recommendation.

The Committee notes that DOD continues to produce and publish plans which highlight projects requiring far more funds than requested in the President's budget. In the current environment, every single DOD program could develop a plan to spend more funds than can be provided within a fiscally constrained budget. The Committee directs that none of the funds available to the Department of Defense may be used to develop, publish, or disseminate program plans which endorse a level of funding for manufacturing technology programs in excess of the amount requested in the DOD future years defense plan.

The Committee restates its support for the ongoing Generalized Emulation of Microcircuits [GEM] Program. The Committee understands that this program should be able to successfully compete for as much as \$5,000,000 in fiscal year 1995 funds. The Committee's recommended funding level should provide adequate resources to permit the GEM Program to continue under a competitive award process.

The Committee directs that the fiscal year 1996 budget request for manufacturing technology funds be supported by a firm rationale for all proposed efforts. Initially, manufacturing technology programs were proposed to reduce the cost and time required to manufacture specific parts for DOD weapon system production programs. In this manner, each project was generally required to prove that the Pentagon would save money on production, effectively paying back the manufacturing technology project investment.

However, the fiscal year 1995 manufacturing technology budget request includes funds for projects such as developing a new composite tail for the C-17 aircraft. While having merit, it is not clear that the manufacturing technology budget was intended to develop product improvements outside the existing R&D Program and in advance of the production program.

Finally, some now advocate the concept of establishing centers in selected manufacturing technology disciplines. These centers represent a costly, enduring investment for DOD. It is not clear how the effectiveness of these centers will be measured. In the past, DOD has provided funds to the National Center for Manufacturing Sciences [NCMS]. In this case, DOD has only one voice within a committee which decides how these funds are spent. One independent review concluded that defense needs played little or no role in the investment decisions. Over 90 percent of the projects were performed by NCMS member companies. However, only 5 percent of the participating members are defense contractors. The Committee has not provided funds to continue DOD support of NCMS.

Strategic Environmental Research and Development Program.-The Committee has provided the requested level of funding for the Strategic Environmental Research and Development Program [SERDP]. The Committee notes that this recommendation allows DOD to continue all current SERDP projects and provides a small amount of funds to begin new projects during fiscal year 1995. The Senate recommendation is \$15,000,000 above the House allocation.

The Committee commends DOD for developing a plan which will allow the SERDP Program to be determined in advance of the budget request. The Committee is convinced that this approach will ensure that SERDP funds are concentrated on the Pentagon's highest priority projects. The Committee believes any increases to the fiscal year 1995 SERDP request could easily result in the funding of duplicative, lower priority projects which were not important enough to be included in the budget request. The Committee believes that the ongoing SERDP planning process should continue concentrating on identifying the highest priority projects for fiscal year 1996 funds.

Cooperative DOD/VA medical research.-This program supports collaboration between the DOD and the Veterans Administration on medical research projects of interest to the military community. The Committee appropriates \$20,000,000 for continued activities in the coming fiscal year to continue this joint Medical Research and Development Program at the previous year's level. The administration requested no funds for this program, and the House provided \$30,000,000.

The Committee notes that diabetes is a chronic and often fatal disease affecting more than 13 million Americans. Some estimates indicate that at least 15 percent of veterans admitted to Veterans Administration [VA] hospitals suffer from diabetes. The Department of Veterans Affairs reportedly spends 14 percent of its medical care budget on direct care of patients with diabetes. The Committee recommends that the two departments consider augmenting diabetes research and pursue public/private partnerships in this area.

Manufacturing technology [ARPA].-ARPA pursues the development and integration of new electronic device technologies as well as the manufacturing processes needed to produce these components within this account. The Committee allocates \$333,154,000, decreasing the budget request by \$12,975,000, and reducing the House allocation by \$78,075,000. The specific actions recommended by the Committee are detailed in the following text.

First, a reduction of \$5,000,000 is made in the request for microelectromechanical [MEMS] components and systems. The request of \$25,000,000 basically represents a new start which concurrently demonstrates the uses of MEMS, develops MEMS manufacturing processes, and invests in manufacturing infrastructure. In addition, the ARPA budget also includes \$7,800,000 for MEMS basic technology efforts. The Committee believes that the infrastructure project is premature until the basic technology, manufacturing process, and demonstration investments proceed.

Second, a decrease of \$24,475,000 is recommended to defer the microwave and analog front end technology [MAFET] project. MAFET is a 5-year program which serves as a follow-on to the Microwave and Millimeter Wave Monolithic Integrated Circuits [MIMIC] \$600,000,000 Program. MAFET will focus on design environment tools, component development processes, and bench•mark•ing demonstrations. ARPA has multiple efforts concentrating on electronic device design tools, and ARPA officials admitted that these tools can be adapted to microwave device design. Further, officials indicated that today's technology satisfies the

needs of virtually all DOD systems still in development such as the F-22, the ground-based radar, and the Aegis radar upgrade. Lacking firm requirements and planned transition opportunities, the Committee finds it difficult to support initiation of a program which will cost over \$265,000,000 through 1999.

Third, the Committee approves an increase of \$4,000,000 and directs that these funds shall be made available only for the continuing projects conducted at the Institute for Advanced Flexible Manufacturing Systems and managed by the National Center for Manufacturing Sciences [NCMS].

Fourth, \$12,300,000 sought to begin a Dual Use Reconfigurable Factory Program is eliminated. This effort is more appropriately funded within defense conversion since its primary focus is to develop the processes needed to support flexible, efficient manufacture of a range of electric motors for electric automobiles, trucks, and buses.

Fifth, \$1,700,000 is deleted from the interferometric fiber optic gyroscope manufacturability project. These funds were identified as excess to firm program requirements.

Sixth, the Committee urges ARPA to continue evaluation of a new process for a multichip module [MCM] fabrication and test system utilizing a low-cost desktop programming product which includes electronic design automation, standardized interconnection substrates and module packaging elements, and silicon function cells. The Committee provides an additional \$1,500,000 only to support this new process.

Seventh, the Committee directs that \$2,200,000 of the funds provided are available only to continue the Coronary Angiography Program.

Finally, the Committee adds \$25,000,000 to the ARPA request for advanced lithography as previously approved by the Senate. Within the additional funds, the Committee urges ARPA to allocate the funds necessary to fully fund the Microlithographic Mask Development Program.

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Semiconductor manufacturing technology.-The Committee provides \$90,000,000, the budget request amount, to continue support for the consortium of semiconductor manufacturing companies known as Sematech. Within the amount provided, the Committee urges Sematech and ARPA to work together to fund a proposed initiative called process synthesis. ARPA's goals for this effort are to revolutionize the semiconductor industry by providing a ten-fold reduction in manufacturing development nonrecurring engineering and development time while offering a systematic approach to manufacturing process design. The technologies to be developed and demonstrated match well with the objectives and missions of the Sematech consortia. The Committee strongly urges that a portion of ARPA's Sematech funds be devoted to initiating this program which could improve the capability and competitiveness of U.S. semiconductor manufacturers.

Finally, the Committee applauds Sematech's recent decision to no longer seek Federal funds. With this decision, Sematech has become a model for all consortia which may follow. Sematech was created to address the declining market share of the U.S. semiconductor industry. Through a combination of factors, including the positive efforts of Sematech, the United States has reversed the declining market share trend. Also, Federal investment in semiconductor technology has increased. Critical problems in the future may continue to merit the creation of consortia. However, these consortia should solve the problem and disband after a period of time, freeing up resources to address other priority challenges facing this Nation.

Electric vehicles.-Demonstrations underway in the ARPA Electric Vehicle Program have helped to define the current capabilities of electric vehicles and outline areas requiring future investment to meet military and civilian needs. The Committee provides \$15,000,000, the same amount previously approved by the Senate and an increase of \$5,000,000 over the House allowance. The Defense Department did not request funds to continue this program.

Advanced concept technology demonstrations.-The Committee provides \$19,000,000 for the recently approved advanced concept technology demonstrations [ACTD's]. The Committee reduces the budget request by \$31,000,000 to eliminate funds for ACTD's which are not approved and may be premature until the Pentagon and the Congress have had the opportunity to evaluate the results obtained from the initial investments in this new acquisition strategy. The House denied all funds for this program.

The Committee understands that the Office of the Secretary of Defense only recently approved an ACTD focused on improving countermine capabilities for amphibious operations. The Committee has received insufficient information to allocate funds for this initiative. However, the Committee urges OSD to provide additional details as to the military objectives, cost, schedule, technical risks, and relationship of this initiative to other ongoing countermine activities. Should sufficient information be forthcoming, the Committee will consider whether to allocate funds for this project later during the budget process.

High Performance Computing Modernization Program.-The Committee has provided the full budget request amount of \$183,048,000. The House allowance is \$130,000,000 below the Senate recommendation.

The Committee urges the Department of Defense to carefully evaluate a proposal by an existing consortium to develop a network of smaller computers that can perform as a single large supercomputer. Such a project could accelerate the investigation and usage of clustered, distributed high performance computing [HPC] systems as collocated, cost-effective, useful supplements to the large-scale, mature HPC systems previously installed under this program.

Joint Wargaming and Simulation Management Office. To continue efforts to establish standards and support the cost-effective adoption of simulation technologies by the services, the Committee allocates \$55,003,000 for programs of the Defense Modeling and Simulation Office [DMSO]. The Committee action proposes the following reductions: (a) \$500,000 for excessive office support growth; (b) \$1,500,000 for STOW-E and tri-service medical demonstration readiness initiatives; (c) \$3,005,000 for interoperability simulation activities which should be completed within the increased funds allocated for the Tech Center; (d) \$2,435,000 for projects which seek to support the unfunded advanced amphibious assault vehicle [AAAV] project; (e) \$975,000 for FASTPROP atmospheric modeling software which will force DOD to adopt an experimental protocol data unit [PDU]; (f) \$699,000 for manufacturing testbed efforts which duplicate multiple ARPA projects; and (g) \$4,000,000 allocated for 1995 new starts in the areas of medical, test and evaluation, and education and training. The new start areas highlighted in the final reduction represent a dilution of the DMSO mission until the substantial challenges of reaching agreement on synthetic environments and computer generated forces can be achieved.

The Committee's recommendation is \$13,114,000 below the budget request, but \$26,886,000 above the House allowance.

Rocket Motor Demilitarization Program.-Within this program, DOD has developed and demonstrated several approaches to disposing of rocket motors in an environmentally conscious manner. The Committee, like the House, recommends \$4,500,000 to continue exploring the use of the Nevada test site for disposal and recovery of rocket motor propellants and other explosive materials. The budget request did not include funds for these activities.

The Committee is concerned about the Department of Defense's failure to develop a plan for disposal of rocket motors, ammunition and other explosives. Pentagon officials characterize the growing inventory of rockets and ammo as a serious problem. However, after spending millions of dollars to demonstrate environmentally conscious disposal methods which include recovery and reuse of propellants, DOD has not budgeted any resources to implement a disposal solution. DOD officials expressed concern in the past about current procedures such as open or contained burning, which only create new environmental problems.

The Committee directs the Director for Defense Research and Engineering [DDR&E] to prepare a report on this matter. The report should identify all the numbers and types of items, and the corresponding propellant/explosive quantity, which DOD has declared surplus. An analysis of the cost and implications of storing these materials should be included in this report. The report should detail all ongoing and planned disposal actions, noting the items to be destroyed and the disposal procedure. Finally, the report should briefly outline the disposal options, providing an analysis of the cost of each option and a discussion of the advantages and disadvantages of each option. Finally, the report should outline DOD's long-term plan for disposal of rocket motors, ammunition, and other energetic materials.

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AIM-9 Consolidated Program.-In their respective RDT&E budget requests, the Air Force and Navy sought funds to pay their separate shares of the joint program to develop an upgraded short-range air-to-air missile, known as the AIM-9X. As stated in the "RDT&E, Navy" and "RDT&E, Air Force" sections of this report, the Committee agrees with the House recommendation to transfer these funds to this consolidated program element under the authority of the Office of the Secretary of Defense. The total provided in this program element is \$49,320,000.

The Committee commends the efforts of the principal Deputy Under Secretary of Defense (acquisition and technology) and the Assistant Secretary of the Navy (research, development, and acquisition), and their respective staffs for their responsiveness in addressing the Committee's position about potential international participation in the AIM-9X Program. The Committee appreciates the support by the other congressional defense committees of its position, now adopted in the Pentagon's AIM-9X acquisition strategy, that AIM-9X alternatives from allied nations be considered for meeting U.S. Navy and Air Force requirements.

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NATO research and development.-The Committee approves \$35,290,000, a decrease to the budget request of \$24,950,000. The House allowance is \$15,050,000 below the Senate. The Committee recommends the following decreases in the requested program: (a) \$3,000,000 for unspecified cooperative opportunities; (b) \$7,500,000 for the tandem rider/Goodwood project which duplicates an acquisition program terminated by the Army for affordability and priority reasons; (c) \$3,500,000 for a premature effort to develop an F-18E/F radar upgrade [RUG]; and (d) \$10,950,000 for the new start projects which are not supported by agreements and allied cost sharing or which are poorly justified given ongoing U.S. development efforts. The reduction for new start projects defers the following efforts: fighting vehicle propulsion technology using ceramic materials; helmet mounted display; rapid deployment electro-optical system; ship defense cooperative engagement capability [CEC]; and the space surveillance experiment module.

Innovative Environmental Security Technology Systems Program.-The Committee recommends \$35,000,000 for this new effort to demonstrate promising environmental technologies. The proposed funding level provides \$20,000,000 more than was requested in the budget and an equal increase over the House allowance.

The Committee deletes \$9,000,000 for unspecified demonstration program awards. The recommended funding level provides \$6,000,000 to develop program implementation plans and to initiate project activities.

The Committee adds \$18,000,000 and directs that these funds shall be made available only to the Office of Environmental Security for a competitive, cost-shared, near-term Climate Change Fuel Cell Program. Procurement, project management, and contract administration responsibility should be delegated to the Department of Energy's Morgantown Energy Technology Center, the lead Federal agency in the development and commercialization of stationery fuel cell powerplants, in coordination with the National Defense Center for Environmental Excellence, which will provide manufacturing technology, environmental, and testing expertise in support of the program. To achieve a workable cost-shared program that ensures significant private sector participation, the Committee directs

the Federal contribution not exceed the lower of \$1,000 per kilowatt or one-third of the total project costs, which includes unit cost, installation, and precommercial operation. Eligible powerplants must be manufactured in the United States, with priority consideration being given to powerplants planned for DOD installations.

The Committee recommends an increase of \$4,000,000 only to evaluate and certify bioremediation technologies which meet environmental restoration requirements. The Committee understands that various DOD installations have utilized bioremediation to address soil contamination problems. The Committee believes these technologies may offer a lower cost, more expeditious means to correct contamination, versus more traditional soil excavation techniques. The Committee is concerned that uncertainty over bioremediation technology has resulted in increased costs and delays in implementing this solution for contamination cases. The Office of Environmental Security shall execute a test, through competitive solicitation, of bioremediation technology at not less than four installations in the United States, to determine whether this technology can meet DOD, EPA, State, and local environmental standards. The Office of Environmental Security shall report the results of these tests, and certify to the Committee the utility of successful techniques, not later than August 1, 1995.

The Committee has also provided an additional \$3,500,000 and directs that these funds shall be available only to conduct a demonstration of the Terra-Vit hazardous waste treatment technology. The demonstration should be completed at an EPA-permitted facility in the State of Hawaii. This effort could provide a solution to the treatment and disposal of hazardous waste in Hawaii which must now be shipped to facilities in the continental United States at a substantial cost to DOD.

Last, the Committee directs that \$3,500,000 of the added funds shall be used only to complete the Natural Gas Liquefier Program which was previously approved by the Congress.

The Committee notes that the Department of Defense's new environmental security programs include provisions to promote the development of dual-use environmental technologies, including the field testing and certification of new environmental technologies that will result in faster, cheaper, and more effective cleanup; less cost in complying with environmental, safety, and health laws; more creative conservation initiatives; and a greater ability to prevent pollution at the source. The Committee is aware of technology being developed to use cultured fish as biological indicators of pollution, a promising approach to early assessment of the biological impacts of pollution on aquatic organisms and to prediction of future impacts after bioaccumulation has occurred. The Committee urges the Defense Department to carefully evaluate the benefits of developing and implementing this unique concept.

The Committee also urges the Department of Defense to consider adopting the modeling techniques deployed by Lawrence Livermore Laboratory. The computer software being used was created by researchers at the International Research Center for Groundwater Remediation Design. The software allows users to develop an optimum cleanup plan by analyzing a number of environmental parameters.

Technical studies, support, and analysis.-The Committee approves \$24,647,000 to provide funds for studies, analyses, and technical support efforts aiding the policy and acquisition officials in the Office of the Secretary of Defense. After recognizing the transfer of critical technologies efforts to another program element, the fiscal year 1995 budget request reflects over 60 percent real growth. The Committee deletes \$15,854,000 compared to the budget request, maintaining the fiscal year 1994 level of effort. The House allowance is \$5,854,000 above the proposed Senate level.

Foreign material acquisition and exploitation.-The Committee provides \$199,900,000, increasing the budget request amount and the House allowance by \$150,000,000. The Committee recommendation is outlined in the classified annex accompanying this report.

Defense support activities.-The Committee provides \$12,234,000, a decrease of \$3,000,000 compared to the budget request and an amount of \$5,500,000 below the House allowance. Based on the delayed obligation of fiscal years 1993 and 1994 funds, the budget request for fiscal year 1995 can be reduced.

WWMCCS/global command and control system.-The Committee eliminates all funds requested in this program element, producing a \$6,766,000 decrease to the budget and an equivalent reduction to the House allocation. RDT&E funds are no longer required based on the DOD's plan to integrate existing command and control systems to provide a global command and control system [GCCS].

DMA mapping, charting, and geodesy [MC&G] production system improvements.-Activities in this program element permit the development of new technologies and software to support the operational mission of the Defense Mapping Agency [DMA]. The Committee recommends \$58,565,000, decreasing the budget request by \$8,443,000 and raising the House allowance by \$1,557,000.

The Committee deletes \$4,200,000 allocated to unspecified other crisis support efforts within the new MC&G processes project. The balance of the decrease, \$4,243,000, eliminates funds for unspecified efforts to exploit sources for weapon systems within the new MC&G concepts project, efforts which also appear to overlap with the DMA's advanced sensors project.

Defense airborne reconnaissance support activities.-DARO was created in November 1993 to unify existing airborne reconnaissance architectures and enhance the management and acquisition of all joint service and defensewide manned and unmanned airborne assets, including vehicles, sensors, and data systems. This unification included the transfer of the U-2 and COBRA BALL from the National Foreign Intelligence Program [NFIP] to DARO.

One of the first tasks DARO initiated was to assess, develop, and implement a strategy to meet airborne reconnaissance needs through the year 2010. As a result of this study, DARO initiated an extremely ambitious Unmanned Aerial Vehicle [UAV] Program at the expense of sensor development and cockpit modernization programs for the U-2, RC-135 re-engining and sensor upgrades to other critical platforms that encompass the airborne reconnaissance fleet. As currently proposed, the UAV Program consists of four separate UAV's (tier I, tier II plus and tier III minus)-each with varying degrees of capabilities and survivability. In reviewing the UAV plan, the Committee concluded that there was no demonstrated need for a four-tiered architecture, specifically both tier II plus and tier III minus platforms. The Committee believes that a more capable and survivable UAV could be developed by combining the tier II plus and tier III minus programs. Furthermore, DOD officials have indicated that either one of these vehicles (tier II plus or tier III minus) would produce more data than could be analyzed by DOD and the intelligence community. Therefore, the Committee directs that both programs be terminated and, with the exception of \$10,000,000, the Committee has deleted funding (\$75,000,000 for tier II plus and \$3,000,000 for tier III minus) for these platforms as well as rejects the realignment of additional funds (\$37,000,000) for tier III minus. Furthermore, the Committee directs that the Department expend the \$10,000,000 to develop a single UAV platform concept that combines the endurance and payload weight envisioned for tier II plus and the low observable attributes envisioned for the tier III minus. The plan for combining these platforms shall be submitted to the Congress for review and consultation prior to any further action being taken.

Outyear savings resulting from combining the tier II plus and tier III minus programs are to be used to ensure that other programs, such as the U-2, rivet joint, and EP-3, are maintained in a technologically advanced and operationally sound manner. In this same vein, the Committee directs that fiscal year 1996 operation and maintenance funding for the U-2 include all operations currently being conducted by the U-2. The funding for these operations is not to be accomplished at the expense of other U-2 program funding.

Additionally, due to the end of the cold war, funding for several key platforms used to support worldwide collection for nonproliferation and treaty verification have been terminated. In order to strengthen COBRA BALL's effectiveness in these critical areas, the Committee has added \$13,600,000 to upgrade or enhance sensor and data processing systems.

Further, while management of the U-2 rests with the DARO, the Committee believes that it should be funded within the NFIP. Therefore, with the exception of the contingency airborne reconnaissance system [CARS], the Committee has retained funding for the U-2 within the NFIP.

The Committee also proposes the following reductions in the unmanned aerial vehicle's [UAV] project: (a) \$3,410,000 to avoid the use of 17 percent of program funds for technical and engineering support; (b) \$5,000,000 planned for ADA conversion of the maneuver UAV, a system which will not even be competitively selected until early 1995; (c) \$5,000,000 to reduce the system engineering and support efforts in the commonality and interoperability project; (d) \$3,500,000 to establish organic logistics support for the medium altitude endurance [MAE] UAV based on the Joint Project Office's assumption that MAE will transition to a major acquisition program; and (e) \$2,000,000 for unspecified MAE demonstrations which were budgeted to increase by \$3,281,000 in fiscal year 1995.

The Committee has provided funds to develop a maneuver or close range UAV system. The Committee supports a full and open competition for this system. DOD has indicated that this competition should allow the Pentagon to choose among a number of off-the-shelf UAV's. The Committee directs that the use of the existing common ground stations be a requirement of the maneuver program.

The Committee is aware of the logistics and safety problems posed by the fuels required to operate existing UAV systems. The Committee restates its direction that the Hunter UAV Program select a heavy-fuel engine approach and provide a plan to demonstrate the heavy-fuel engine in the Hunter prior to Milestone III.

The Committee further directs that the fiscal year 1996 budget submission should include a break out, by project, of all DARO activities. Last, the Committee directs that no programs may be terminated, or funds transferred between DARO projects, without prior congressional approval.

The Committee agrees to make available \$100,000,000 for reactivation of a modest (three-plane) SR-71 Blackbird reconnaissance aircraft contingent for intelligence operations, as recommended by the Senate Armed Services Committee. The Committee believes reactivation is justified because of the unique operational capability that, at present and for the next few years, only this aircraft can provide. Cost estimates for the first year of operation, including one-time costs to reactivate such a contingency group, and the out-years operation and maintenance costs, are based on estimates from the Defense Airborne Reconnaissance Office, and on the recent experience of NASA, which is currently flying the aircraft for scientific experimentation. To control cost growth, the Committee recommends a cap on funding for fiscal year 1995. Further, the Committee believes that an appropriate operation and maintenance estimate for the out-years is less than \$50,000,000 per year, depending on the extent of emergency usage, based on at least 1 month of operational activity, with 10 to 15 sorties.

The SR-71 Program was terminated in 1990 as a full-fledged operational activity involving 12 aircraft on the grounds of costs, lack of need as a result of the end of the cold war, and the promise of follow-on systems which would be able to accomplish the missions for which the SR-71 was designed: oncall strategic and tactical reconnaissance through surprise, assured, and invulnerable penetration of the target nation's airspace to defeat deceptive practices aimed at our other reconnaissance techniques. All three grounds for termination no longer pertain. First, the end of the cold war did not remove the need for a capability to overfly nations for intelligence considered in the vital interests of our Nation and our allies. During the Persian Gulf war, our commanders on the scene badly needed the capabilities of the SR-71. The final report to Congress on the "Conduct of the Persian Gulf War", April 1992, stated that:

Imagery was vital to coalition operations, especially to support targeting development for precision-guided munitions and Tomahawk land attack missile attacks, and for BDA. Operations Desert Shield and Desert Storm placed great demands on national, theater, and tactical imagery reconnaissance systems. The insatiable appetite for imagery and imagery-derived products could not be met.

The SR-71 could have been useful during Operation Desert Shield if overflight of Iraq had been permitted. In that case, the system would have provided broad area coverage of a large number of Iraqi units. * * * During Operation Desert Storm air operations, the SR-71 would have been of value for BDA and determining Iraqi force dispositions.

The fact is that the SR-71 could have mapped Iraq in 3 hours and provided intelligence that was not available to the United States planners for the duration of the conflict. Furthermore, the tremendous extent of Iraqi nuclear weapons development activity that became increasingly clear only many months after the war could well have been detected through the use of the SR-71.

Second, the systems which some hoped would be developed and procured as a follow-on to the SR-71 have not materialized, leaving the SR-71 the only asset in our inventory which has the capability to provide widearea synoptic coverage in all weather, day and night; can cover any target on short notice, with a 3.2 Mach speed to reach any target in the world on short notice; has the sensor flexibility to fly photographic, radar, signals intercept, or other missions responding to the needs of the on-scene commander; can defeat deceptive practices that are currently being engaged in by a variety of nations who may have precise knowledge of the overhead times and orbits of our reconnaissance satellites; that is, according to a new DARO study, still invulnerable to interdiction; that is a mechanism that the President can use selectively to demonstrate national will as a political instrument.

Further, the aircraft allows for surges in collection capability; and provides high-quality synoptic coverage of large areas without drawing national collection systems from other areas of interest.

None of these qualities can be attributed to other air-breathing systems in our inventory, such as the U-2, nor to satellite coverage.

Regarding cost, the Committee has allocated \$100,000,000 for the first year reactivation and operation and maintenance costs of the aircraft. The Committee believes that it would take about \$60,000,000 to prepare three aircraft now in storage at Edwards Air Force Base and Palmdale, for operational service. The Committee, therefore, directs that no more than \$60,000,000 be available for this purpose. Estimates for operations support amount to some \$40,000,000, roughly equally divided between Air Force and contractor support. These cost estimates have been validated in a July 15, 1994, report by the Defense Airborne Reconnaissance Office on "The Reactivation of an SR-71 Contingency Capability." The Committee notes that NASA currently operates three SR-71 aircraft on loan from the USAF at a cost of \$6,210,000 per year in direct and indirect costs, flying 10 missions. The assumptions upon which those estimates are based include 12 months of operations and training and one 30 day deployment during which 10 operational sorties would be conducted.

Further savings may be available by establishing an organizational concept of a combined Air Force/NASA, contractor team based at the Air Force Flight Test Center [AFFTC] at Edwards AFB, CA, where the NASA operations are currently conducted. This basing provides synergism from combined operations, collocation of operations and training, and a combined maintenance/logistics concept extending from current SR-71 logistic support for NASA. Under this concept, according to the Commander of the AFFTC, the "SR-71's unique capabilities could additionally be used to support national advanced technology demonstration and testing. AFFTC is prepared to fully support this combined ACC/AFMC/NASA SR-71 unit." The Air Force is directed to work with NSA and the contractor to collocate all possible logistics and operational support facilities for the SR-71 Program, under the combined concept developed by the Flight Test Center.

Given the utility of the system to both national and tactical intelligence and commanders, the Committee believes costs should be evenly shared by the intelligence community and the TIARA budget and has included funds in the bill divided along those lines.

Last, a robust sensor suite should be incorporated in this contingency group proposal. First, the advanced synthetic aperture radar system [ASAR-1] should be included. This provides a demonstrated air-to-ground system with high data rate, providing all weather, day-night capability. Second, regarding optical imagery, both a broad area optical bar camera and a targetable tactical resolution camera will be included, allowing selection from a range of sensors, depending on the mission profile that is determined.

As a result of the recommended adjustments, the Committee approves \$544,980,000, increasing the budget request by \$16,690,000. The House allowance is \$64,310,000 above the Senate allocation.

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BALLISTIC MISSILE DEFENSE ORGANIZATION [BMDO]

The following table summarizes the Committee's funding recommendations regarding the fiscal year 1995 Ballistic Missile Defense Organization [BMDO] programs. Within a number of new, discrete program elements, the Committee provides \$2,558,855,000 for BMDO RDT&E programs as previously approved by the Senate. The Committee recommends specific reductions totaling \$301,000,000 and transfer of \$120,000,000 for the Brilliant Eyes Program to the Air Force. The combination of these actions decreases the BMDO budget request by \$421,000,000, providing an amount \$67,093,000 above the House allowance.

The recommended funds are provided within the discrete program elements already approved by the Senate. The Committee recognizes that this reallocation, based on data provided by BMDO, still includes some funds in the National Missile Defense [NMD] Program element related to theater missile defense [TMD] and other similar overlaps. The Committee directs that the fiscal year 1996 budget request be presented within the new program elements and with careful consideration given to budgeting funds in the correct program elements in accordance with the intended use of the moneys requested. The following table precisely details the Committee's realignment of funds between program elements. The Committee has deleted all funds in the budget request program elements to effect the transfer of funds into the newly established program elements.

[In thousands of dollars]

						Committee reco	
Current program element/project	New	program element/project	Budget request	House allowance	Committee recommendation	Budget request	House allowance
F	Patriot:						
604216C 2207	Patrio	ot PAC-3	69,240	69,240	69,240		
604216C 2208	ERIN	ľΤ	58,460	58,460		-58,460	-58,460
	ERIN	IT/Patriot risk reduction			92,000	+92,000	+92,000
604225C 2207	Patrio	ot	217,200	217,200	217,200		
	Subto	otal	344,900	344,900	378,440	+33,540	+33,540
							IV 51

604216C 2210	THAAD	495,690	480,000	465,690	-30,000	-14,310
604216C 2213	Sea-based area TBMD (Navy lower tier)	179,543	100,000	149,056	-30,487	+49,056
604216C 2104	GBR-T	173,200	173,200	193,200	+20,000	+20,000
604216C 2308	HAWK upgrades	26,800	26,800	26,800		
	Battle management and C ⁴ I for TMD:					
604216C 3211	Battle management and C ⁴ I for TMD	33,500	33,500	12,567	-20,933	-20,933
604225C 3211	C ⁴ I and concepts ops anal	555	555	555		
	Subtotal	34,055	34,055	13,122	-20,933	-20,933
	National missile defense:					
603217C 1101	Passive sensors	24,500	24,500	24,500		
603217C 1102	Radar	10,000	10,000		-10,000	-10,000
603217C 1104	Signal processing	7,100	7,100	7,100		
603217C 1105	Discrimination	29,382	29,382	29,382		
603217C 1106	Sensor studies and experiments	48,600	48,600	35,600	-13,000	-13,000
603217C 1201	Interceptor component technology	22,500	22,500	13,500	-9,000	-9,000
603217C 1217	KKV technology	120,000	120,000	120,000		
603217C 1403	Computer engineering technology	2,500	2,500	2,500		
603217C 1405	Communications engineering technology	500	500	500		
603217C 1501	Survivability	3,000	3,000		-3,000	-3,000
603217C 1504	Materials and structure	5,000	5,000	5,000		
603217C 2104	GBR	8,000	8,000	8,000		
603217C 2300	BM/C ³ technology	56,500	56,500	24,438	-32,062	-32,062
603217C 3101	Engineering/integration support	18,977	18,977	18,977		
603217C 3202	Operations interface	1,530	1,530	1,530		
603217C 3300	Test and evaluation support	93,697	93,697	93,697		
603217C 4000	Operational support	15,276	15,276	15,276		
604217C 2102	Brilliant eyes	120,000			-120,000	
	Undistributed reduction to NMD		-225,335			+225,335
	Subtotal	587,062	241,727	400,000	-187,062	+158,273
	Follow-on TMD:					
603216C 1105	Discrimination	58,119	58,119	58,119		
603216C 1106	Sensor studies and experiments	28,500	28,500	28,500		
603216C 1201	Interceptor component technology	5,000	5,000	5,000		
603216C 1216	Sea-based wide area (Navy upper tier)	17,725	120,000	17,725		-102,275
603216C 1501	Survivability	4,900	4,900	4,900		
603216C 1502	Lethality and target hardening	32,800	32,800	32,800		
603216C 2209	ARROW/ACES	52,400	52,400	52,400		
603216C 2212	Corps Sam	17,725	17,725	10,000	-7,725	-7,725
603216C 3101	Engineering/integration support	45,590	45,590	22,628	-22,962	-22,962
603216C 3201	Architecture and studies	42,161	42,161	30,531	-11,630	-11,630

603216C 3202 603216C 3300	Operations interface Test and evaluation Support	2,522 163,855	2,522 163,855	2,522 163,855		
003210€ 3300	Kauai test facility	103,633	103,633	(4,000)		
603216C 4000	Operational support	7,834	7,834	7,834		
0032100 1000	Arrow deployability	7,031	7,031	(15,000)		
	Throw deproyability			(15,000)		
	Subtotal	479,131	581,406	436,814	-42,317	-144,592
	Follow-on technologies:					
603217C 1111	Advanced sensor technology	48,000	48,000	10,000	-38,000	-38,000
603217C 1215	Boost phase intercept-KE	61,100	17,725		-61,100	-17,725
603217C 1302	Chemical laser	77,500	20,500		-77,500	-20,500
	Combined BPI Program			90,000	+90,000	+90,000
603217C 1305	ATP/FC demo	12,500	12,500	12,500		
603217C 1503	Power and power cond	10,000	10,000	10,000		
603217C 1504	Materials and structure	2,000	2,000	2,000		
602217C 1601	Innov science and technology [IS&T]	60,000	60,000	41,510	-18,490	-18,490
602217C 1602	SBIR	46,460	46,460	39,896	-6,564	-6,564
	Undistributed reduction-IS&T, SBIR		-33,000			+33,000
603217C 3107	Environment, siting, and facilities	5,606	5,606	5,606		
603217C 3201	Architecture and studies	8,000	8,000	8,000		
603217C 3203	Intel threat development	8,050	8,050	8,050		
603217C 3204	Countermeaures integration	18,303	18,303	18,303		
603217C 3206	System threat	6,890	6,890	6,890		
603217C 3300	Test and evaluation support	9,400	9,400	9,400		
603217C 4000	Operational support	32,720	32,720	32,720		
603217C 4302	Technology transfer	2,862	2,862	2,862		
603217C 1106	Russian-American observational satellites			(1,000)		
	[RAMOS]					
	Subtotal	409,391	276,016	297,737	-111,654	+21,721
	Management and support:					
603218C 4000	Operational support	215,233	198,833	163,146	-52,087	-35,687
604216C 3300	Test and evaluation support	34,850	34,850	34,850	,,,,,,	,
		- 1,000	- 1,0-0	- 1,000		
	Subtotal	250,083	233,683	197,996	-52,087	-35,687
	Grand total	2,979,855	2,491,787	2,558,855	-421,000	+67,068
	Granu totai	2,717,033	2,471,707	۷,۵۵,۰۵۵	-421,000	+07,008

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Patriot.-DOD has decided to allocate \$92,000,000 to a risk reduction program which will include efforts on the extended range interceptor [ERINT] and the Patriot multimode missile. The Committee adds \$33,540,000 to the budget request of \$58,460,000 for ERINT efforts to fund the combined risk reduction program. The

funds added include \$8,500,000 only to support enhanced Army participation in the Navy mountain top demonstrations to develop improved air defenses against cruise missiles. The Army is directed to include full funding in its fiscal year 1996 budget request to continue this more meaningful participation in the joint demonstration.

Theater high altitude area defense [THAAD]. The theater high altitude area defense system will be used with the ground-based radar for theater missile defense [GBR-TMD] to provide wide area protection from theater ballistic missiles [TBM's] for our forward deployed forces. The Committee strongly endorses this program, recognizing that it responds to an urgent military requirement. However, the Committee remains concerned about the pace and concurrency within the program. The Committee denies \$30,000,000 sought to support 4 of the 10 planned flight tests scheduled in fiscal year 1995, since it is not likely that DOD can accomplish all planned tests. The total program funding level, \$465,690,000, is \$14,310,000 below the House allocation.

Sea-based area TBMD (Navy lower tier). The Committee provides \$149,056,000, adding \$49,056,000 to the House allowance but reducing the budget request by \$30,487,000. The Navy has initiated a cost and operational effectiveness analysis [COEA] to consider options for both the Navy upper and lower tier programs. The Committee continues to agree with DOD officials that the Navy Lower Tier Program should reduce the risk and prove the concept of sea-based theater ballistic missile defense. Thus, the Committee felt that adding funds for the Navy Upper Tier Program was not warranted. Similarly, the Committee felt that fully funding the budget request prior to completion of the COEA and further study of lethality issues was also not warranted.

The Committee recognizes that the Pacific missile range facility [PMRF] air, surface, and subsurface ranges and associated test and exercise infrastructure provide the unique capability to conduct virtually unrestricted test and evaluation in ideal conditions in support of the Defense Department, the armed services, the National Aeronautics and Space Administration, and U.S. friends and allies. Furthermore, the range is specifically equipped with the optical and radar tracking equipment, communications network, test control facilities, rocket launch infrastructure, and range support capability necessary to support tests of theater missile defense systems and concepts. Based on these unique assets and PMRF's demonstrated record of success, the Committee directs that the Pacific missile range facility [PMRF] shall be designated the primary test range for the completion of Navy lower tier and upper tier missile flight tests.

Ground based radar-theater missile defense [GBR-TMD].-The Committee has increased the budget amount, and the House allowance, for GBR-TMD by \$20,000,000 to provide a total of \$193,200,000. Termination of the national missile defense radar [GBR-NMD] has resulted in increased infrastructure and technology support requirements being levied on the GBR-TMD effort. To ensure the availability of radar systems to support THAAD flight tests, the Committee provides the necessary increase in program funds.

Battle management and C^4I for TMD.-The Committee eliminates \$20,933,000 compared to the budget request and the House allowance, holding activities in this project to the fiscal year 1994 level. The recommendation provides \$12,567,000 to complete the highest priority C^4I integration efforts.

National missile defense.-Based on information provided by BMDO, the Committee has consolidated all national missile defense [NMD] technology readiness efforts in a new program element. The Committee provides \$400,000,000, a reduction to the consolidated budget request of \$187,062,000 and an amount \$158,273,000 above the House recommendation. The Committee's actions reflect the following reductions: (a) \$10,000,000 for radar technology based on the deferral of the activities planned under the original budget request; (b) \$13,000,000 allocated to develop an infrared sensor for the airborne warning and control system [AWACS], an effort which is premature until a related development effort is allowed to proceed; (c) \$9,000,000 for pilotline experiment technology [PET] efforts which have been altered by the loss of a key participant; (d) \$3,000,000 sought for unjustified survivability efforts on the now deferred NMD system; (e) \$32,062,000 of the funds designated to continue the invalid expenditure of roughly \$60,000,000 per year on an NMD battle management/command, control, and

communications [BM/C³] system, including the specific elimination of \$25,000,000 to begin development of a block 1 BM/C³ system; (f) \$120,000,000 in brilliant eyes funds which have been transferred to a new Alert, Locate, and Report [ALARM] Demonstration and Validation [Dem/Val] Program.

Follow-on TMD.-The Committee recommends \$436,814,000 to continue projects which support the development and evaluation of emerging and future theater ballistic missile defense concepts. The approved funding level reflects a decrease of \$42,317,000 in the collected budget request for projects related to follow-on TMD and a reduction of \$144,592,000 versus the allocations made by the House. A number of adjustments are made to reflect the Committee's priorities.

First, a reduction of \$7,725,000 is proposed in the Corps Sam Program. The decrease includes \$1,900,000 to procure Government furnished equipment for a nonexistent program and \$5,825,000 for in-house and support contract efforts which were budgeted at a level exceeding the major contract value.

Second, the Committee directs that \$4,000,000 of the test and evaluation support funds shall be made available only to sustain the operations and support BMDO test activities at the Kauai test facility [KTF].

Third, a cut of \$22,962,000 in the engineering/integration support project is recommended. The budget request sought 255 percent real growth in these activities. BMDO provided no justification for such an excessive increase in support costs.

Fourth, a decrease of \$11,630,000 is proposed in the architecture and studies project. The following discrete decreases make up the total reduction: (a) \$5,000,000 from unspecified commanders in chief exercises; and (b) \$6,630,000 for functional analyses of upgraded approaches to sensors, command, control, communications, and intelligence capabilities, efforts which are premature until current baselines are established.

Last, the Committee directs that \$52,400,000, the budget request amount, shall be made available only for the Arrow Continuation Experiments [ACES] Program. Further, the Committee directs that, within the total funds available for follow-on TMD efforts, \$15,000,000 should be allocated to ARROW.

The Committee has provided the requested amount for the TMD Critical Measurements Program II [TCMP II]. The Committee expects BMDO to execute this program as planned at the funded level.

Follow-on technologies.-The recommended funding level of \$297,737,000 for consolidated technology efforts which support current and future TMD systems represents a decrease of \$111,654,000 to the budgeted amount and an allocation \$21,721,000 above the House. The actions comprising the Committee's recommendations are outlined in the text which follows.

First, \$38,000,000 budgeted for a new effort to develop and evaluate advanced sensor concepts is eliminated. While still refining program plans, BMDO anticipates an unsupportable \$500,000,000 program to provide a follow-on sensor for the Boost Phase Intercept [BPI] Program.

Second, the Committee has deleted \$61,100,000 for the Kinetic Energy BPI Program; \$77,500,000 for the space-based laser [SBL] BPI project; \$52,000,000 in Air Force RDT&E funds also budgeted for the Kinetic Energy BPI Program; and \$20,000,000 in Air Force RDT&E funds budgeted for the Airborne Laser BPI Program. The Committee believes that three costly BPI programs, all of which lack full out-year funding, are unaffordable. In a defense budget which already is underfunded by roughly \$20,000,000,000,000, the Committee believes the use of limited research and development funds to pursue all three BPI concepts is unwise.

The Committee provides \$90,000,000 in a consolidated program with the expectation that DOD will have to make difficult, but necessary, choices between competing BPI concepts. The Committee directs that BMDO provide a plan for these funds prior to obligating any amounts. The House provided \$17,725,000 for kinetic energy BPI and \$20,500,000 for the SBL BPI effort but did not consolidate BPI projects.

The Committee urges that consideration be given to a joint United States-Israel Boost Phase Intercept Program. The Committee recommends that up to \$15,000,000 of BPI funds may be used for such a joint program provided that the Secretary of Defense provides the following certifications to the congressional defense committees: (a) the United States and Israel have entered into an international agreement governing the conduct and funding of such a joint effort; and (b) the projects will have specific, direct benefits for the United States.

Third, the Innovative Science and Technology Program is allocated \$41,510,000, a reduction of \$18,490,000 compared to the budget request and the House allowance. The proposed funding level maintains these activities at the fiscal year 1994 level while acknowledging a reduced need for BMDO high-risk technology efforts.

Last, the small business innovative research project is reduced by \$6,564,000, to reflect the proportionate reduction in the overall BMDO Program budget.

The Committee also notes its concern about the contracting approach used to purchase Topaz II reactors from Russia. The DOD has accepted delivery of four reactors without adequate funds to pay for the systems. The Committee directs BMDO not to enter into any future contracts which irreversibly obligate Congress to appropriate funds.

The Committee understands that the Topaz II project may be transferred to the Defense Nuclear Agency [DNA]. In the event of this shift, the Committee directs DNA to preserve the integrity of the Topaz II Space Power Program and to provide for its continuation in the 1996 budget request.

The Committee notes the opportunities presented by the Russian-American observation satellite [RAMOS] initiative, and specifies that not less than \$1,000,000 shall be available only for this effort. This amount reflects only the minimum investment that DOD should dedicate to this program. The goals and objectives of RAMOS are consistent with the authorized purposes of the Nunn-Lugar, SERDP, and dual use technology programs. The Committee urges the Department to consider application of funds from these accounts to expand DOD participation in RAMOS for fiscal year 1995.

Finally, the Committee understands that responsibility for the Clementine Program has been transferred to the Air Force from BMDO. The Committee directs that all unobligated funds originally allocated to the Clementine project be transferred from BMDO to the Air Force.

Management and support.-The Committee provides \$197,996,000 in a combined management and support program, decreasing the budget request by \$52,087,000. Compared to the House action on these merged programs, the Senate has deleted an additional \$35,687,000. The reduction holds the fiscal year 1995 funds for these activities to a level which matches the proportion of management and support in the fiscal year 1993 total funding level for missile defense.

Disaster planning and preparedness.-The Committee believes that DOD and its agencies can make a tremendous contribution to Federal efforts to deal with natural disasters. DOD planning tools could be adapted to the task of developing action plans to be implemented prior to an emergency. DOD sensors could be utilized to identify areas vulnerable to damage in the event of hurricanes, earthquakes, or other natural events. DOD sensors could also enhance efforts to predict the course of storms and other tools could be modified to produce real time reaction plans which could minimize or avoid loss of life and property damages which are preventable with proper planning and reaction.

The Committee is aware of efforts within the Office of the Secretary of Defense, the Deputy for Command, Control, and Intelligence [${}^{\circ}$ I] to review DOD's capabilities to respond to this need. The Committee commends these planning efforts and provides \$5,000,000 to move forward with projects and activities in this area. The Committee directs that these funds shall be made available only to proceed with efforts outlined through interactions with Government and private concerns including thorough evaluation of the merits of a Pacific disaster center. The Committee believes these discussions, motivated by the extensive damage caused by Hurricane Iniki, form a sound basis for a comprehensive, regional approach to disaster planning.

Special operations technology development.-Projects within this account allow the Special Operations Command to study and prototype new technologies which address the unique mission demands of special forces. The Committee approves \$6,160,000, an adjustment which reduces the request by \$1,400,000 but adds \$600,000 to the House allowance. The action transfers \$1,400,000 sought for a new counterproliferation technologies effort to the Coun•ter•pro•li•fer•ation Program element created by the Committee. The Committee directs that special operations programs should be given consideration by the Joint Committee for the Review of Coun•ter•pro•liferation Programs for available funds.

Special operations tactical systems development.-The Committee provides \$153,286,000 to develop the weapon and support systems required to meet the tactical mission needs of special operations forces [SOF]. The recommendation is \$14,070,000 below the budget request and \$11,480,000 below the House allowance.

The Committee's proposed appropriation reflects the following reductions: (a) \$9,598,000 for the stabilized weapons platform system [SWPS] which has been terminated; (b) \$1,144,000 for undefined avionics architecture evaluations; (c) \$2,500,000 to defer development of the gunship avionics integration trainer; (d) \$828,000 for unspecified studies to initiate new developments within the communications advanced development project. With regard to the SWPS reduction, the Committee has transferred a portion of these funds to the "Procurement, defensewide" account to permit the procurement of existing weapons platforms which meet the SWPS requirement. The Committee specifically denies funds for premature, SOF-specific efforts on the evolving enhanced fiber optic guided missile [EFOG-M].

Point-of-care blood testing.-The Committee directs the Department of Defense to study the feasibility and cost effectiveness of using highly portable point-of-care blood testing in military medical facilities. The study should provide an assessment of the extent to which this new technology can increase health care quality while decreasing costs by performing blood analysis in a short period of time at the patient's bed side without the long waiting time, expensive equipment, maintenance costs, and personnel required with traditional testing. The study should address the extent to which use of this technology will allow the military services to reduce medical evacuations by providing diagnosis on location and improve the cost effectiveness of laboratory testing at field hospitals, ships, and medical aircraft. The report should be provided to the Appropriations Committee no later than February 31, 1995.

Nonacoustic antisubmarine warfare.-The Committee has, for many years, strongly supported the operation and management of a nonacoustic antisubmarine warfare program independent from the Navy, although coordinated closely with related Navy efforts. The Committee directs that, before any changes are made in the management, operation, and internal departmental oversight and responsibility of this independent program, there occur consultation with, and notification to, the Committee.

OTHER ADJUSTMENTS

The Committee recommends incorporating the following additional adjustments to classified programs, as explained in the classified annex to the Committee's report:

[In thousands of dollars]

Committee recommendation compared to-

	Committee						
	Budget estimate	House allowance	recommendation	Budget request	House allowance		
Cryptologic activities	(1)	(1)	+13,700	+13,700	(1)		
General Defense	(1)	(1)	+2,000	+2,000	(1)		
Intelligence Program	` ′	, ,			, ,		

1_{Classified}.

HOUSE ADJUSTMENTS

The Committee disagrees with the following adjustments to the budget request contained in the House allowance:

[In thousands of dollars]

				Comn recomme compar	endation
Item	Budget	House	Committee	Budget	House
	request	allowance	recommen-	request	allowance
			dation		
Advanced submarine technology	25,261	38,761	25,261		-13,500
Computer aided logistics support	13,090	15,590	13,090		-2,500
Maritime Technology Office		12,000			-12,000
Consolidated DOD software initiative		27,500			-27,500
Joint tactical information distribution system [JTIDS]	84,409	11,100	84,409		+73,309
Commercial communications		10,000			-10,000
Industrial preparedness		25,000			-25,000
Special operations advanced technology development	15,549	13,549	15,549		+2,000
Classified programs	1,139,099	1,059,287	1,139,099		+79,812
Ballistic missile defense technology	106,460	73,460		-106,460	-73,460
Theater missile defenses	479,131	581,381		-479,131	-581,381
Ballistic missile defense technology	769,993	444,283		-769,993	-444,283
					IX-58

Theater missile defense (demonstration/ validation) Ballistic missile defense technology (demonstration/validation)	1,071,283 120,000	976,050		-1,071,283 -120,000	-976,050
Theater missile defenses	217,755	217,755		-217,755	-217,755
Research and support activities	215,233	198,833		-215,233	-198,833
SATCOM ground environment	213,233	95,191		213,233	-95,191
Satellite communication		47,115			-47,115
Defense Meteorological Satellite Program [DMSP]		14,639			-14,639
Advanced spacecraft technology		64,200			-64,200
Space systems environmental interactions technology		4,200			-4,200
Space Test Program		62,084			-62,084
Advanced MILSATCOM		35,000			-35,000
Defense Meteorological Satellite Program block 6		7,601			-7,601
Satellite systems survivability		8,531			-8,531
Brilliant eyes		120,000			-120,000
Advanced space based TW/AA (dem val)		330,000			-330,000
MILSTAR LDR/MDR sat com		607,248			-607,248
UHF satellite communications		20,879			-20,879
Defense satellite communications system		30,876			-30,876
Medium launch vehicles		21,042			-21,042
Upper stage space vehicles		3,663			-3,663
Titan space launch vehicles		4,000			-4,000
Defense Meteorological Satellite Program [DMSP]		21,135			-21,135
NAVSTAR global positioning system		51,125			-51,125
Defense Support Program		47,351			-47,351
Nudet detection system		10,140			-10,140
Space launch initiative		140,000			-140,000
General reduction, university research		-430,000			+430,000
Civilian personnel pay raise and locality pay		1,100			-1,100
Civilian personnel under strength		-700	-1,800	-1,800	-1,100

SAC, p. 333-339

DEVELOPMENT, TEST, AND EVALUATION, DEFENSE

Appropriations, 1994	\$232,457,000
Budget estimate, 1995	251,495,000
House allowance	251,495,000
Committee recommendation	224,353,000

The Committee recommends an appropriation of \$224,353,000 for the "Development, test, and evaluation, defense" account, a decrease of \$27,142,000 to the budget request. The recommendation is \$27,142,000 below the House allowance.

COMMITTEE RECOMMENDED ADJUSTMENTS

Central Test and Evaluation Investment Program [CTEIP].-The Committee recommends \$88,176,000, a reduction of \$27,142,000 to the budget request and to the House allowance. This recommendation consist of several adjustments.

First, the Defense Department has been unable to define its spending requirements for two CTEIP efforts: the Resource Enhancement Program for test range upgrades, and the Test, Technology, Development, and Demonstration Program which develops new testing technologies. Consequently, the Committee denies the \$10,800,000 requested for these programs.

Second, \$13,650,000 is denied for the Enhanced Installed System Test Facility Program. This effort is premature because the current system, which would become the baseline to determine the requirements for future enhancements, is still being developed.

Third, \$5,400,000 is denied for the Range Internetting Networks Program to electronically link the Defense Department ranges. The program is premature until the Department completes it's plan to reduce the test and evaluation infrastructure, and the base realignment and closure process further progresses.

Fourth, the Committee adds \$3,483,000 to fund the development of a real-time data link between the air combat environment test and evaluation facility [ACETEF] and the real-time electromagnetic digitally controlled analyzer and processor [REDCAP]. The link will improve the realism of testing at both facilities by allowing REDCAP computer simulations to now involve actual flight hardware and by including realistic threat command and control in the ACETEF test simulations.

Lastly, the Committee does not believe that there is a requirement for CTEIP to invest in dual-use efforts. Therefore, the \$775,000 requested for this program is denied.

The budget activities and programs funded under this appropriations are displayed below.

SUMMARY TABLE

[In thousands of dollars]

Committee recommendation compared to-

				compare	ea to-
	Budget	House	Committee		House
	estimate	allowance	recommenation-	Budget request	allowance
Central Test and Evaluation Investment	115,318	115,318	88,176	-27,142	-27,142
Program					
Foreign comparative testing	33,716	33,716	33,716		
Live fire testing	10,461	10,461	10,461		
Test and evaluation	92,000	92,000	92,000		
Total, development, test, and	251,495	251,495	224,353	-27,142	-27,142
evaluation, Defense					

OPERATION TEST AND EVALUATION

Appropriations, 1994	\$12,650,000
Budget estimate, 1995	12,501,000
House allowance	12,501,000
Committee recommendation	12,501,000

The Committee recommends an appropriation of \$12,501,000 for this account. This amount is the same as the budget request and the House allowance. **SAC, p. 346-347**

TITLE V

REVOLVING AND MANAGEMENT FUNDS

The Committee recommends appropriations totaling \$1,618,000,000 for title V, revolving and management funds. This is \$322,408,000 and \$267,551,000 below the requested and House allowance levels, respectively.

The Committee provides funding for the defense business operations fund [DBOF] and the national defense strategic lift fund under this heading.

DEFENSE BUSINESS OPERATIONS FUNDING ADJUSTMENTS

Appropriations, 1994 Budget estimate, 1995 House allowance Committee recommendation \$1,102,295,000 1,169,038,000 1,090,438,000 789,400,000

The Committee's recommendations provide \$789,400,000 for the defense business operations fund, an amount significantly less than requested for appropriations. Reducing the DBOF appropriation request (primarily requested to cover defense commissary operations costs) to reflect adjustments which affect the DBOF revolving fund cash balances is a departure from the norm. In the past, adjustments to DBOF programs were levied against the services' "O&M appropriation" accounts. These adjustments were then to be offset by transfers from DBOF cash balances directed in law or report language. The Senate national defense authorization bill for 1995 adopted a new approach, believing that reducing the "Defense commissary" appropriation gives Department managers of the DBOF that much more incentive to transfer funds quickly and in the amounts directed by Congress. The Committee has gone along with that approach for now, but intends to revisit the matter prior to the conclusion of the House-Senate conference.

Like the Army, Air Force, and Defense Agencies, activities funded through the defense business operations fund will begin and end fiscal year 1995 with fewer civilian personnel on the payrolls than planned, according to data supplied by the Department. A reduction of \$198,000,000 is made to account for these lower personnel levels.

The recommendations also support initiatives approved in the Senate-approved national defense authorization bill for fiscal year 1995. One of these initiatives-capping amounts which can be obligated for capital purchases from the fund-results in a savings of \$100,000,000 in 1995. A reduction to the DBOF appropriation is made to account for this limitation.

Finally, a general reduction of \$72,638,000 is proposed in order to meet the 1995 Senate defense authorization bill account level. That bill cut DBOF appropriations by \$100,000,000 in anticipation of lower-than-budgeted fuel prices. Recent information indicates that lower fuel prices likely will not obtain in fiscal year 1995. Thus, the Committee also intends to revisit this issue prior to the conclusion of the House-Senate conference.

SAC, p. 348-349

DRUG INTERDICTION AND COUNTERDRUG ACTIVITIES, DEFENSE

Relocatable over-the-horizon radar [ROTHR].-The Committee fully supports the construction and fielding of a third ROTHR in Puerto Rico. When fully operational, these three ROTHR sites will provide enhanced radar coverage and reduce operation and maintenance costs by alleviating the need for certain ground-based radars in use today. The fiscal year 1995 budget submission for coun•ter•drug activities requested \$10,000,000 for construction of the ROTHR in Puerto Rico. This activity is more appropriately funded within military construction. Therefore, in order to accommodate this request, the Committee has transferred \$10,000,000 to the "Military construction, Navy" account.

Tethered aerostat radar system [TARS].-The fiscal year 1995 request for TARS shows an increase of \$5,500,000 while, at the same time, the number of TARS for fiscal year 1995 is less than in fiscal year 1994. Therefore, the Committee has reduced the fiscal year 1995 request by \$7,000,000. The Committee directs that this reduction not be taken against TARS located along the Southwest border.

SAC, p. 361-2

Over-the-horizon backscatter [OTH-B].-Within funds available, \$9,800,000 shall be used to partially offset expenses incurred in operating the OTH-B east coast radar system on a 40-hour-per-week basis. The Committee emphasizes that fiscal year 1996 funding will be contingent upon: (1) receipt and positive review of a cost-benefit analysis of the system directed by then Secretary Aspin; (2) receipt and positive review of a report by NOAA regarding use of OTH-B to support its mission; and (3) determination by the President, in consultation with the Secretaries of Defense and Commerce, as to the future of this program.

SAC, p. 363

TITLE VIII

GENERAL PROVISIONS

The following listing shows the disposition of general provisions as proposed by the House. The Committee recommends inclusion of several proposals recommended by the House as well as provisions which have been incorporated in previous appropriations acts but were not included by the House, provisions requested for inclusion by the Defense Department, and new provisions. Each is identified and discussed as necessary. The Committee recommendations are as follows:

Sec. 8003. Obligation rate of appropriations.-Retains provision limiting obligation of appropriations for only 1 year unless otherwise expressly provided.

Sec. 8004. Obligations in last 2 months of fiscal year.-Retains provision which controls end-of-year spending.

Sec. 8005. Transfers.-Retains House provision which provides transfer authority of \$2,000,000,000.

Sec. 8008. Special access programs notification.-Retains.

Sec. 8010. Multiyear procurement authority.-Recommendation agrees with the House to retain the multiyear procurement provision.

SAC, p. 367

Sec. 8054. Federally funded research and development centers [FFRDC's]/consultants.-Amends House language regarding FFRDC's. Language is added to cap total DOD spending on FFRDC's at \$1,300,000,000, restrict FFRDC executive compensation and for other purposes.

SAC, p. 369

Sec. 8070. GWEN.-Retains provision prohibiting funding for GWEN.

Sec. 8075. Aircraft fuel cells, buy American.-Deletes House provision mandating purchase of only U.S. aircraft fuel cells and adds the following:

Senate Sec. 8075. B-2 depot maintenance.-Restores language from fiscal year 1994 denying funds to establish or support organic depot maintenance activities in DOD to support B-2 Program until a report requested last year is provided to Congress.

Sec. 8078. DBOF/investment item.-Retains House provision.

Sec. 8080. Reprogramming instructions.-Retains annual provision on reprogramming guidance.

Sec. 8087. NATO airborne warning and control system [AWACS] payments.-Retains language as requested making available to the Air Force, instead of the U.S. Treasury general fund, funds paid to the United States by the NATO allies for participation in the AWACS Radar System Improvement Program.

SAC, p. 370-2

Sec. 8097. SURTASS.-Deletes House provision which prevents improving SURTASS surveillance system capabilities unless a particular signals processor is used, and adds the following:

Senate Sec. 8097. Non-FFRDC master plan.-Adds a provision which requires the submission of a management, funding, and manpower master plan for major nonprofit non-FFRDC laboratories and institutions engaged in defense research and development.

Sec. 8098. Competition for consultants and studies programs.-Retains provision as requested by DOD which requires competition for consulting services, studies, and analyses.

Sec. 8101. Energy Savings transfer.-Deletes House provision, as requested, allowing reallocation of energy savings and adds the following:

Senate Sec. 8101. Bomber force structure.-Inserts new provision restricting the obligation of funds for upgrading and modifying bombers until the Secretary of Defense reports to the Congress the results of a cost and operational effectiveness study on Air Force bombers. This issue is also addressed in title III of this report.

Sec. 8102. Intelligence authorization.-Retains House provision.

Sec. 8106. Titan IV launch vehicles.-Deletes the House provision prohibiting the obligation of any funds for the Titan IV launch vehicle with exceptions and adds the following:

Senate Sec. 8106. Separation benefits.-Restores and amends language included in the fiscal year 1994 act which denies payment of both separation benefits and retention bonuses to individuals in the military. Prohibits payment of separation bonuses to civilian employees of DOD that obtain other Federal employment within 180 days of separation from DOD, and payment of incentives to military who obtain civil service employment with DOD within 180 days of separation from the military.

SAC, p. 372-373

The Committee on Appropriations, to which was referred the bill (H.R. 4650) making appropriations for the Department of Defense for the fiscal year ending September 30, 1995, and for other purposes, reports the same to the Senate with amendments and recommends that the bill as amended do pass.

New obligational authority

Total of bill as reported to Senate	\$243,414,029,000
Total of 1995 budget estimate	244,711,179,000
Amount of bill as passed by House	243,564,292,000
Amount of fiscal year 1994 enacted	240,544,945,000
The bill as reported to the Senate:	
Below fiscal year 1995 budget estimate	-1,297,150,000
Over enacted appropriations for fiscal year 1994	+2,869,084,000
Below the House passed bill	+150,263,000

BACKGROUND

PURPOSE OF THE BILL

The purpose of this bill is to make appropriations for the military functions of the Department of Defense for the period October 1, 1994, through September 30, 1995. Functional areas include the pay, allowances, and support of military personnel, operation and maintenance of the forces, procurement of equipment and systems, and research, development, test and evaluation. Appropriations for military assistance, military construction, family housing, nuclear warheads, and civil defense are provided in other bills.

In its examination of the President's budget for defense appropriations the Committee has made a deliberate effort to review funding requests within the context of the national security objectives they are intended to serve. The Committee believes that presenting requests for defense appropriations or considering individual weapons systems or force structures without reference to the ends they are intended to serve is to rob them of any intelligible meaning. We have, therefore, sought the views of policymakers in the executive branch and outside experts. That defense policy should be considered in such a way was the intent of the National Security Act of 1947, which created what was then known as the National Military Establishment and what came to be known as the Department of Defense.

NATIONAL FOREIGN INTELLIGENCE BUDGET AND RELATED BUDGETS

The Committee has reviewed the National Foreign Intelligence Program budget, the intelligence-related activities budgets, and special access program budgets which are funded in this bill. The results of the Committee's review are made available in a separate classified annex as an integral part of this bill, and further explained in a classified report accompanying the bill. The intelligence community and the Department of Defense are expected to comply fully with the provisions of the classified annex, and the recommendations and directives in its accompanying report.

The Committee wishes to commend the Directorate of Special Programs and the Comptroller within the Office of the Secretary of Defense, as well as the budget and comptroller entities for each of the armed services, for their efforts to ensure proper notification of actions taken by the Committee that affect special

access programs. Timely notification of Committee actions taken regarding special access programs is a crucial step in the appropriation process and the Committee appreciates the level of diligence required to accomplish this activity.

REPROGRAMMING PROCEDURES

The Committee recommends the continuation of section 8005 regarding prior approval reprogramming procedures and the use of transfer authority.

EXECUTIVE COMPENSATION

The conferees on the Fiscal Year 1993 Defense Appropriations Act expressed their concern with compensation of defense executives. Last year, the Committee reiterated its concern with this subject. The Committee notes that, in its report to the Committee, the Defense Department cited many examples where it had to deny several industry attempts to charge executive compensation at levels which can only be characterized as outrageous. Recent published articles note compensation payments to certain aerospace officials in excess of \$7,000,000. The Committee continues to believe these multimillion dollar taxpayer financed payments need to be reconsidered. As such, it repeats its admonition. The defense industry is shrinking. Workers are being laid off, and Congress and the executive branch are seeking several methods to ease the transition of defense industry and its employees. This is not the time to reach new heights in defense executive compensation packages.

The Committee still believes reform is needed in executive compensation. It emphatically states its position that DOD should not allow costs charged to the Government for any individual to exceed what the Government is itself prepared to pay its own senior executives, for example, Cabinet officials.

The Defense Department responded to the Committee's request to submit legislation on this matter stating its view that defense contractor salaries were not overly generous. The response from the Defense Department provided no justification for this position. The Committee rejects this conclusion categorically. Therefore, the Committee is recommending section 8117 to rectify this inequity. This provision would no longer allow defense contractors to bill the Government for compensation of its employees at rates in excess of that paid to the Secretary of Defense. While contractors would be free to pay salaries at any level, up to the multimillion dollar salaries which have become common in American industry, they would have to do so from corporate profits, or from other revenues. Contractors could no longer charge the taxpayers for these exorbitant salaries. The Committee knows of no other way to react to the Defense Department's inaction and the continuing levels of excessive compensation. If enacted, this provision would take effect on April 15, 1995.

SAC, p. 1-5